



THE UNIVERSITY  
OF ILLINOIS  
LIBRARY


678.05  
DE  
v.62

REMOTE STORAGE









Digitized by the Internet Archive  
in 2015

<https://archive.org/details/domesticengineer6219unse>











2805  
DE  
V.62

REMOTE STORAGE

# "Domestic Engineering" Quarterly Index

Vol. LXII.—January 4 to March 29, 1913

This is the thirteenth index of "Domestic Engineering" an index for each quarter appearing at the end of that quarter. We ask our readers to note the value of this index for reference, calling special attention to the separate classification of the departments of "Legal Decisions" and "Questions and Answers," and to the "Inventions and Improvements," by means of which you can see that your stock is up-to-date.

<b>A</b>		<b>G</b>	
Associational—		Grinder Room Ventilation for Paper Mills .....	
Albany, N. Y., Master Plumbers' Association Reception and Dinner .....		66	
Augusta, Ga., Master Plumbers' Annual Dinner .....		<b>H</b>	
Annual Meeting A. S. H. & V. E. ....		Heating and Ventilating the Bonwit-Teller Building, New York City....	
Central Supply Association, February Meeting .....		Heating and Ventilating in Post Office at Toledo, O. ....	
Charter Members of Master Steam and Hot Water Fitters' Assn. of Michigan .....		Heating of D. & H. Shops, Watervliet, N. Y. ....	
Chicago Master Plumbers' Annual Meeting and Banquet.....		Hot Water Heating System in a Bakery .....	
Chicago South Side Master Plumbers' Annual Ball .....		I	
Cleveland, O., Master Plumbers' Association Elects Officers.....		Is the Motor Wagon an Asset?.....	
Dinner to Frank J. Fee, President National Assn. of Master Plumbers .....		Increased Efficiency and the Motor Truck .....	
Duluth, Minn., Master Plumbers' Annual Meeting .....		Installation of Sprinklers in New York Skyscrapers .....	
February Meeting of Illinois Chapter of A. S. H. & V. E. ....		Inventions and Improvements—	
Grand Rapids, Mich., Master Plumbers Entertain.....		Acetylene Generator—Ideal Epworth .....	
Illinois Master Plumbers Present Petition to Governor Dunne.....		Bath Tubs—Union Sanitary.....	
Illinois Master Plumbers' Annual Convention .....		Boiler Stand—Phillips .....	
Indiana Master Plumbers' Association Convention .....		Drinking Fountain—"Bubble Font"—Murdock .....	
Iowa Master Plumbers' Annual Convention .....		Closet Combination—"Jack Frost"—Weiskittel .....	
January Meeting of Illinois Chapter of A. S. H. & V. E. ....		Closet Seat—"Genuine Pyralin"—Church .....	
Jersey City, N. J., Master Plumbers Elect Officers.....		Detroit Multi-Port Valve.....	
Kansas Master Plumbers' Association Annual Convention.....		Display Stand—Fanning.....	
Knights of Galena Entertainment and Ball .....		Faucet—"Qua-Turn"—Chicago Faucet Co. ....	
Maine Association of Master Plumbers Holds Mid-winter Meeting .....		Float Valves—Detroit Metal Spinning Co. ....	
Maine Plumbing and Heating Salesmen Hold Annual Meeting.....		Floor Plates—Beaton & Cadwell.....	
Maryland Association of Master Plumbers' Convention .....		Gas Water Heater—"Scientific"—	
Master Steam Fitters' Association Organized in Michigan.....		Granitine Laundry Tray—Elsmere.....	
Master Steam Fitters of Syracuse, N. Y., Organize.....		Laundry Tray Stand—Bayley.....	
Massachusetts Chapter of A. S. H. & V. E. March Meeting.....		Malleable Kit Pipe—Vise—Mark.....	
Master Plumbers of Fox River Valley Hold Meeting.....		Pipe Hanger—"Dad"—Donovan.....	
March Meeting of Illinois Chapter of A. S. H. & V. E. ....		Plumber's Furnace—"Cyclone No. 20"—Lundy .....	
Michigan Association of Master Plumbers' Annual Meeting.....		Pumping Engine—"Caloric"—Bremen .....	
Minnesota Master Plumbers' Annual Convention .....		Radiation Calculator—Novelty.....	
Missouri Master Plumbers' Annual Convention .....		"Sani-Flush"—Hygienic Products.....	
Montana Master Plumbers' Annual Convention .....		Self-Raising Seat—Emery .....	
Nebraska Master Plumbers' Annual Convention .....		"Sensible" Bath Tub Carrier—Canfield .....	
Newark, N. J., Master Plumbers' Banquet and Ball .....		Septic Tank—Andrews .....	
New York Chapter A. S. H. & V. E. February Meeting.....		Soldering Fluid—Ruby.....	
New England Sanitary Club Annual Banquet .....		Soldering Iron—"Neuachat" and "Piccolo"—Globe Gas Light.....	
New England Association of Plumbing Inspectors First Annual Meeting .....		Spud Syphon Jet Closet—Abingdon .....	
New York Chapter A. S. H. & V. E. March Meeting.....		Swing Arm Fountain—Ebinger.....	
New York Association of Master Plumbers' Annual Convention.....		Turbine Injector Pump—Fischer-Sweeney .....	
Ohio Master Plumbers' Annual Convention .....		Wall Outlet Closet—Mann.....	
Philadelphia Master Plumbers' Association, Open Meeting of.....		Vapor Heating System—Trane.....	
Pittsburgh, Pa., Master Steam and Hot Water Fitters Incorporate.....		"Porceloid" Water Closet Seat—Sanitary Specialties .....	
Pittsburgh Association of Master Plumbers' Annual Banquet.....		<b>L</b>	
		Let Us All Read, Think and Co-Operate .....	
		Little Sidelights on Men in the Trade .....	
		Legal Decisions—	
		Damages for Breach of Warranty. 73	
		Duty of Landlord to Reconstruct Heating Plant .....	
		Liability of Landlord for Plumber's Negligence .....	
		Person not a Plumber Having Sign 73	
		Rights Against Mortgage.....	
		Title to Radiators Lost.....	
		<b>M</b>	
		Making Collections .....	
		Man Who Does Not Read, The.....	
		<b>F</b>	
		Factory Heating Installation, An Unusual .....	
		<b>E</b>	
		Economy in Advertising.....	
		Electric Motor in Heating and Plumbing .....	
		Editorials—	
		An Afterthought .....	
		Are Advertised Goods Easiest to Sell? .....	
		Changing Public Sentiment.....	
		Convention Activities .....	
		Constructive Criticism.....	
		Getting Before the Public.....	
		How About The Lien Law?.....	
		Lambasting the Plumber.....	
		Motor Truck Show Interests Plumbers .....	
		Salesmanship and the Plumber.....	
		Spring Moving Time is Here.....	
		The Parcel Post and Mail Buying.....	
		The Power of the Press.....	
		The Search for Ideas.....	
		Value of the Trade Mark.....	
		<b>G</b>	
		Philadelphia Master Plumbers' Ladies' Night .....	
		Portland, Me., Master Plumbers' Annual Banquet .....	
		Reception and Ball of Master Plumbers' Association, Bronx, New York City.....	
		South Dakota Master Plumbers' Annual Meeting .....	
		Springfield, Mass., Master Plumbers' Annual Banquet.....	
		Staten Island, N. Y., Master Plumbers' Annual Meeting.....	
		Texas Master Plumbers' Association Arranges for Exhibits at Convention .....	
		Utica, N. Y., Master Plumbers' Association Elects Officers.....	
		White Plains, N. Y., Master Plumbers' Annual Meeting .....	
		Wisconsin Master Plumbers' Annual Convention .....	
		<b>B</b>	
		Bath Tubs, Portable, Their Use in Hospitals .....	
		Best Policy .....	
		Business of the Modern Sanitarian.....	
		<b>C</b>	
		Cartoon—"Spring Moving Season Is At Hand" .....	
		Cause and Detection of Water Waste.....	
		Chamber of Commerce of U. S. A.....	
		Chicago Sanitary Inspector Testifies in New York .....	
		Cleveland, O., Crusade for Better Ventilation .....	
		Compulsory Ventilation Law is Discussed .....	
		Consolidated Engineering Co. Holds Annual Convention .....	
		Credit Information Bureau, A Plumber's .....	
		<b>D</b>	
		Differing Answers to "Middle West" Plumber .....	
		Denver Alderman Wants Regulation on Boilers and Furnaces.....	
		Do Attractive Showrooms Justify Investment? .....	
		Don'ts, A Few, to Iowa Master Plumbers .....	
		<b>E</b>	
		Economy in Advertising.....	
		Electric Motor in Heating and Plumbing .....	
		Editorials—	
		An Afterthought .....	
		Are Advertised Goods Easiest to Sell? .....	
		Changing Public Sentiment.....	
		Convention Activities .....	
		Constructive Criticism.....	
		Getting Before the Public.....	
		How About The Lien Law?.....	
		Lambasting the Plumber.....	
		Motor Truck Show Interests Plumbers .....	
		Salesmanship and the Plumber.....	
		Spring Moving Time is Here.....	
		The Parcel Post and Mail Buying.....	
		The Power of the Press.....	
		The Search for Ideas.....	
		Value of the Trade Mark.....	

290907



## DOMESTIC ENGINEERING

Master Plumber as a Merchant..... 9  
 Mechanic's Lien Law, Some Phases of 14  
 More Agitation for Representation on  
 State Board ..... 345  
 Motor Trucks in Storage Forms..... 72

### N

New Department for Domestic Engineering, A.....193

### O

Ohio Inspector of Plumbing, Report of .....305, 372  
 One-Cent Letter Postage, About the.. 93  
 Opportunity—A Talk to Iowa Plumbers. ....163

### P

Packing Flange Joints, Some Experience in..... 8  
 Popular Science Brief on the Radiator.128  
 Portable Bath Tubs—Their Use in Hospitals .....275  
 Plumbing Experiences in the Frigid Southwest .....189  
 Plumbing in Mt. Vernon, N. Y., Hospital .....302  
 Plumbing in Greenpoint Hospital, Brooklyn, N. Y.....216  
 Plumber's Credit Information Bureau.244  
 Pneumatic Tank for Sprinkler System.246  
 Public Comfort Station at Kansas City, Mo. .... 2  
 Publicity for Plumbers .....311  
 Put an "Ad" in the Paper.....132  
 Patents .....29, 30, 88, 89, 90, 121, 151, 152, 212, 213, 214, 332, 333

### Q

Questions and Answers—  
 Advantages of Raised Rear Vent.161  
 Another Way of Connecting a Range Boiler .....313  
 Are These Lay-outs Practical?...103

Boiler-Heating Problem, A.....162  
 Changing Water Line in Steam Boilers .....313  
 Continuous Venting, What It Is... 42  
 Desires Plans of Plumbing Details .....376  
 How an Air Chamber Works.....198  
 How to Heat a Bath Room Radiator .....129  
 How Should a Yard Drain be Connected? ..... 75  
 Hot Water Heating Problem ... 76  
 Information About Wiping Solder. 75  
 Information About Septic Tanks..101  
 Is There a Simple Test for Water Contamination? .....225  
 Is This Installation Practicable?...278  
 Is Generator Connected Properly?...279  
 Is This Arrangement Up-to-Date?...377  
 Private Water Works System That Does not Work Right.....102  
 Question About Use of Check Valves .....129  
 Question About Circulation..... 42  
 Question About Hot Water Boiler in Bakery .....278  
 Rust in Range Boiler, Information About.....197  
 Some Questions About a Faulty Heating Installation .....224  
 Two Siphon Problems.....130  
 Two Hot Water Heating Problems .....101  
 What Is Wrong With These Connections? ..... 197  
 What Is Wrong With These Installations? .....223  
 What Is a By-Pass?...130  
 What Will Clean Plumber's Brass Work? .....129  
 Why Should Cast Iron Pipe Be Used With Durham System?...129  
 Water Heating, Question About... 75  
 Will Rapid Circulation Overcome This Difficulty? .....225

### R

Remodeled Heating and Ventilating Job .....  
 Report of Ohio Inspector of Plumbing. ....305, 372  
 Revising Plumbing Ordinances of Cedar Rapids, Iowa.....

### S

Selection and Use of Check Valves.. Spectator, The.....74, 1  
 Stock Yards Inn, Mechanical Equipment of.....  
 Suggestion for Dead Air Space.....  
 Supply Houses Praise Parcel Post....

### T

Through the Safety Valve.....  
 Two Ways to Conduct a Plumbing Business .....

### U

Unintelligent Competition in Brass Goods .....

### V

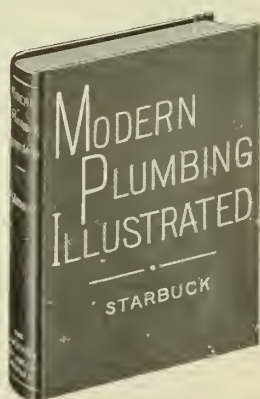
Value of Pipe Covering in Dollars and Cents .....1  
 Ventilating a Modern Department Store .....  
 Ventilation Equipment of Ritz-Carlton Hotel, New York City.....1

### W

Water—Its Properties and Practical Uses .....220-2  
 We Should All Pull Together .....2

# MODERN PLUMBING ILLUSTRATED

By R. M. STARBUCK



A COMPREHENSIVE and up-to-date work illustrating and describing the Drainage and Ventilation of Dwellings, Apartments and Public Buildings, etc. The very latest and most approved methods in all branches of Sanitary Installation are given. Adopted by the United States Government in its Sanitary Work in Cuba, Porto Rico and the Philippines, and by the Principal Boards of Health of the United States and Canada. The Standard Book for Master Plumbers, Architects, Builders, Plumbing Inspectors, Boards of Health, Boards of Plumbing Examiners, and for the Property Owner, as well as for the workman and his apprentice.

"Modern Plumbing Illustrated" represents the standard of excellence in plumbing construction. Among the subjects treated in the text and illustrated are the following: Traps—Venting; Connecting and Supporting of Soil Pipe; House Trap and Fresh-Air Inlet; Floor and Yard Drains, etc.; Rain Leaders; Sub-soil Drainage; Floor Connections; Roof Connections; Local

Venting; Bathroom Connections; Automatic Flushing for Factories, School Houses, etc.; Use of Flushing Valves; Modern Fixtures for Public Toilet Rooms; Durham System; Plumbing Construction Without Use of Lead; Automatic Sewage Lift—Sump Tank; Disposal of Sewage of Underground Floors of High Buildings; Country Plumbing; Cesspools; The Electrolysis of Underground Pipes; Septic Tanks and Sewage Siphons; Pneumatic Water Supply, Rams, etc.; Examples of Poor Practice; Roughing—Testing; Continuous Venting for All Classes of Work; Circuit and Loop Venting; Use of Special Waste and Vent Fittings; Cellar Work; House Drain—House Sewer—Sewer Connections; Plumbing for Cottage House; Plumbing for Residence; Plumbing for Two-flat House; Plumbing for Apartment Houses; Plumbing for Office Building; Plumbing for Public Toilet Rooms; Plumbing for Bath Establishment; Plumbing for Engine houses; Plumbing for Stables; Plumbing for Factories; Plumbing for School Houses, etc.; Thawing of Underground Mains and Service Pipes by Electricity.

**400 Octavo Pages. 55 Full Page Engravings. Price \$4.00.**

*Sent prepaid to any address in the world on receipt of price*

**Domestic Engineering, 445 Plymouth Court, Chicago, Illinois**

Kindly quote "Domestic Engineering" in writing advertisers.



# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing Heating Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1047

CHICAGO, JANUARY 4, 1913

Vol. 62, No. 1

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## THE SEARCH FOR IDEAS.

**I**N our New Year's Number the wide-awake and aggressive president of one of the state associations makes this statement: "I am not ashamed to acknowledge that I am constantly looking for ideas."

This comes from a man who himself is constantly furnishing to his associates ideas that bristle with good business sense, that anticipate the question of the listener, that bring into play the best there is in the business minds of those receiving them.

This man is of the open-minded type of modern business developers. His vision is broad—he has one ear always close to the ground to keep himself from growing self-sufficient—from getting in a rut.

A man's education does not end when he leaves school, nor in the plumbing and heating business can a man stop when he closes the shop at night.

The **idea** is what keeps us all up-to-date. We must keep ideas in our heads at all times—and use them constantly to further our business.

Ideas can come from the employees. One of the most successful plumbing shops in the country maintains a "Suggestion Box," encouraging the employees to submit ideas for the advancement of the business and for the reduction of expense. Ideas that are usable are paid for. The proprietor states that many hundreds of dollars have been made and saved by the firm through the ideas secured in this way.

Good ideas are to be had from the salesmen of manufacturers and jobbers. These men must be keenly alert at all times, and for the men who are "looking for ideas" they are often a gold mine. Business methods, selling schemes, ways of cutting costs, little short cuts of all sorts, are part of their stock in trade.

The manufacturers who advertise—who spend their money in the trade papers and by mail, have ideas to give that many times may mean a lot of real money-making possibilities. **He who reads and looks for them, will find them where he reads.**

You've met the man who knows it all—who isn't seeking ideas, whose brain requires no outside suggestion to work at his bidding. Sometimes he speaks of himself as a **self-made man**—meaning, no doubt, that the ideas of his fellow men are of no value to him.

This is the man who is all noise—whose blatant self-advertising becomes such a medley of meaningless sound, and whose very presence in time becomes unwelcome.

**The man who is looking for ideas!** How welcome he is! He's the modest, unassuming man who doesn't claim to know it all, and who is really the one who is accomplishing wonders.

Look for such men at your next convention.

## AN AFTERTHOUGHT.

**T**HROUGH an oversight, we failed to state in our New Year's Number that every article therein, unless otherwise specially indicated, was written especially for "Domestic Engineering."

Some well-meaning friends, whose idea of the contents of a trade paper came from the days of boiler plate and patent insides in the country newspaper office, were hardly able to credit the high-class editorial matter that was presented last week. And when they were told that such an article as that by Elbert Hubbard required a Christmas stocking chuck full of silver dollars to secure, their first exclamation was, "What wild extravagance!"

But, was it, reader?

# Public Comfort Stations at Kansas City, Mo.

## The Public Conveniences of a City That Has Recently Begun to Find Itself

**S** EVEN years ago, as a stranger traveling through that western gateway, Kansas City, you would have been sorely disappointed at seeing so little evidence of civic pride in such an otherwise prosperous-appearing commonwealth. Dirty, grimy, forbidding in a hundred ways, there seemed little chance of a City Beautiful or a City Practical springing from such surroundings.

But a lot can happen in seven years, and a lot has happened to Kansas City in that time. The street and boulevard plan has worked wonders in the downtown section, and some of the parks have been well-nigh made over.

What interests us most in connection with the improvements made in that time, as much as anything, is the plan of public comfort stations as a part of the general scheme. Most of these comfort stations are of recent construction, and are substantially built for permanent service as well as architectural effect.

Sections of the city that were disease-breeders and pest-holes, have been cleaned out and made sanitary. Old buildings that could be repaired have been equipped with plumbing and sewerage and cleaned up.

The physical aspect of the place, from the bluffs at

the river to the outlying factory districts, shows that a public spirit for betterment has been in the air, and has taken root and grown in soil that has been ripe for it for many years.

While Kansas City seems well provided with comfort stations in its numerous parks, no provision has been made, if we except the proposed station at Ninth and Main streets, for such structures in the business districts of the city.

There are eight comfort stations in the parks, namely: Two in Budd Park, one in Holmes Square, one at the Parade bath-house, one at Observation Park, one at Washington Square, one at Hyde Park and one in the Swope Park shelter building.

The two stations in Budd Park are frame buildings and are equipped with non-freezing plumbing and cost each \$2,500.

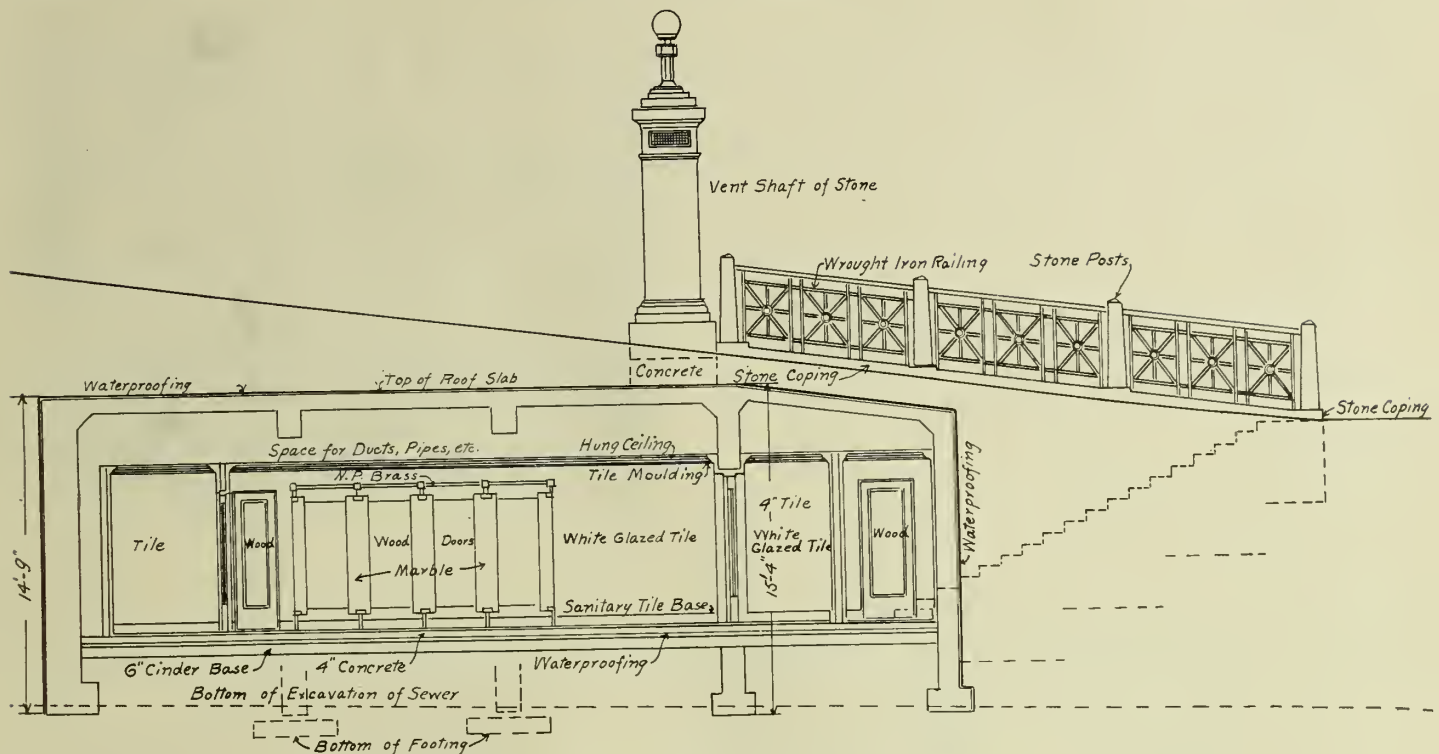
The building in Hyde Park is a stone building with a tile roof, equipped with non-freezing plumbing, and cost \$2,250.

The comfort station in Observation Park is stone and



Bath House and Comfort Station in Holmes Square, Kansas City, Missouri.





Longitudinal Section of Comfort Station, Ninth and Main Streets.

brick with a tile roof. It is equipped with heat and light and the complete cost for construction was \$12,000.

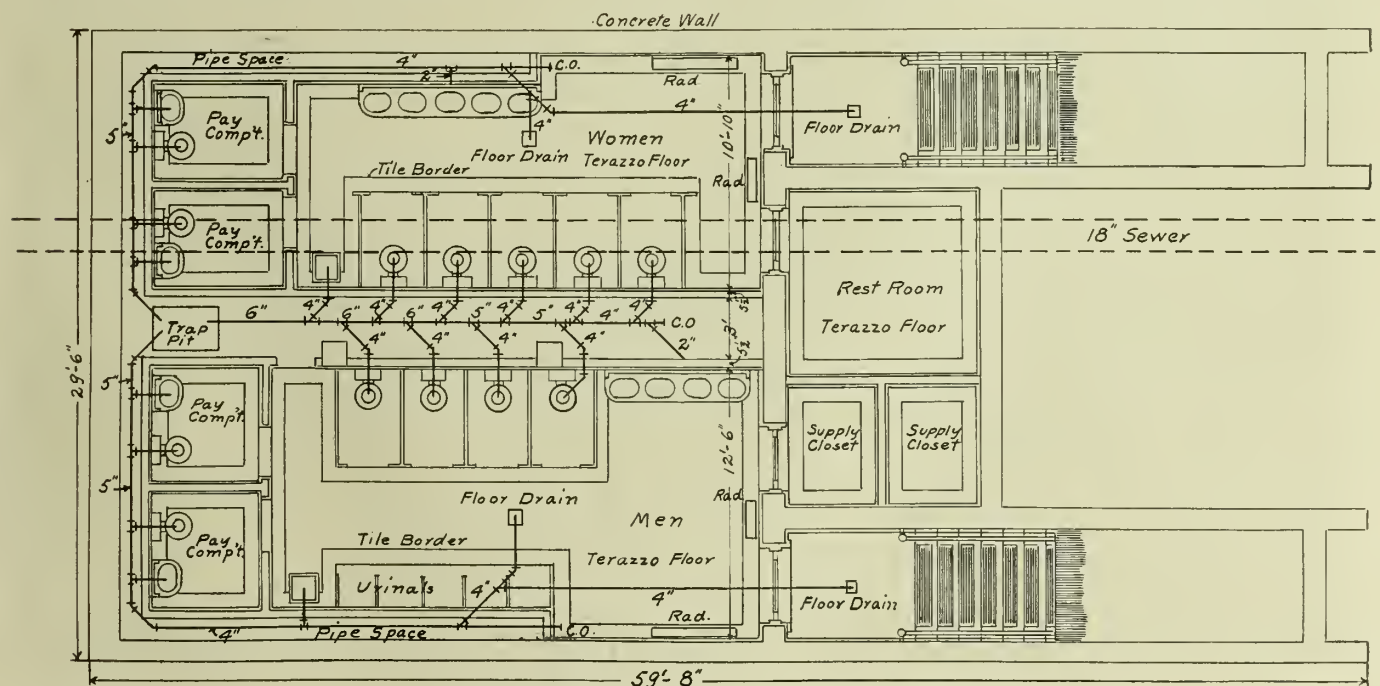
The comfort station in Washington Square is stone and brick with tile roof, equipped with heat and light, and cost \$12,700.

The station in Holmes Square is in connection with the bath-house and is equipped with heat and light, but as it is connected with the bath-house we are unable to estimate the cost of the station separately. The whole building represents an investment of \$30,000. A fair proportion for the comfort station would be \$2,000.

The station at the Parade bath-house is in connection with the bath-house building and is operated only during the summer season. The Parade bath-house with its plunge pool represents an investment of \$40,000 and of this amount a fair proportion for the comfort station building would be \$500.

The station in the Swope Park Shelter Building is in the basement of the building and is equipped with heat and light. The pro rata cost for that part of the building would be about \$2,000.

This would make an investment in comfort stations in



Floor Plan of Comfort Station, Ninth and Main Streets.



the parks of Kansas City now in commission of \$36,450. As to the maintenance of these stations, in only one of them, namely, Observation Park, is there maintained a matron and attendant. The cost of this, together with light and heat, amounted to \$261.15 for the past current year. The other stations are looked after by the watchmen in the parks or janitors in the buildings. No data was available as to cost of maintenance.

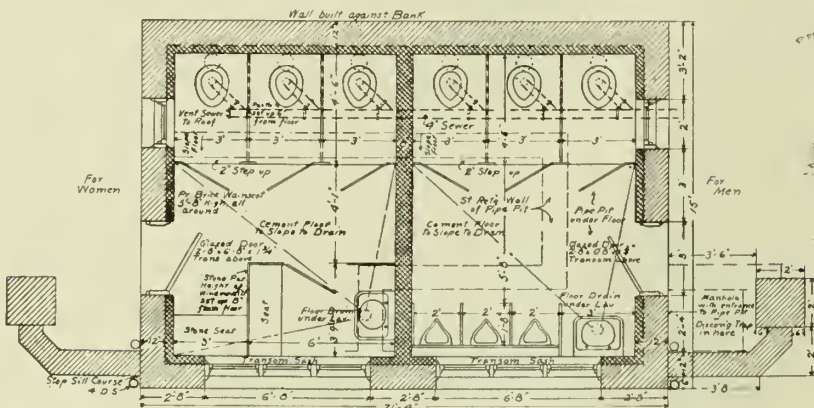
The Washington Square station is just completed and it is expected that the supervision and up-keep of this station will cost about \$700 to \$800 a year.

Plans have been approved and the contracts are about to be let for three new large comfort stations in connection with other buildings. In Garrison Square there is about to be erected a bath-house which will have ample comfort station accommodation. This bath-house will cost \$50,000.

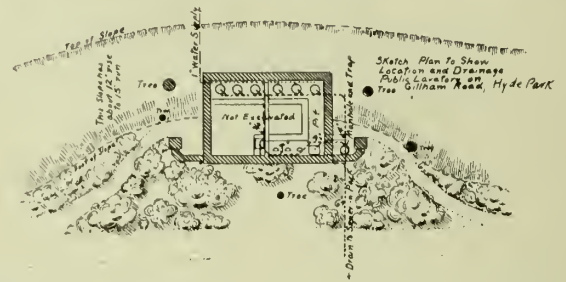
In Grove Park a bath-house and pool is about to be erected which will cost approximately \$100,000. This also will have ample comfort station arrangement.



Comfort Station in Gillham Road (Hyde Park), at 37th Street.



Plan of Public Lavatory Building on Gillham Road, Kansas City, Mo. (Hyde Park).



Surroundings of Comfort Station in Gillham Road (Hyde Park), at 37th Street.

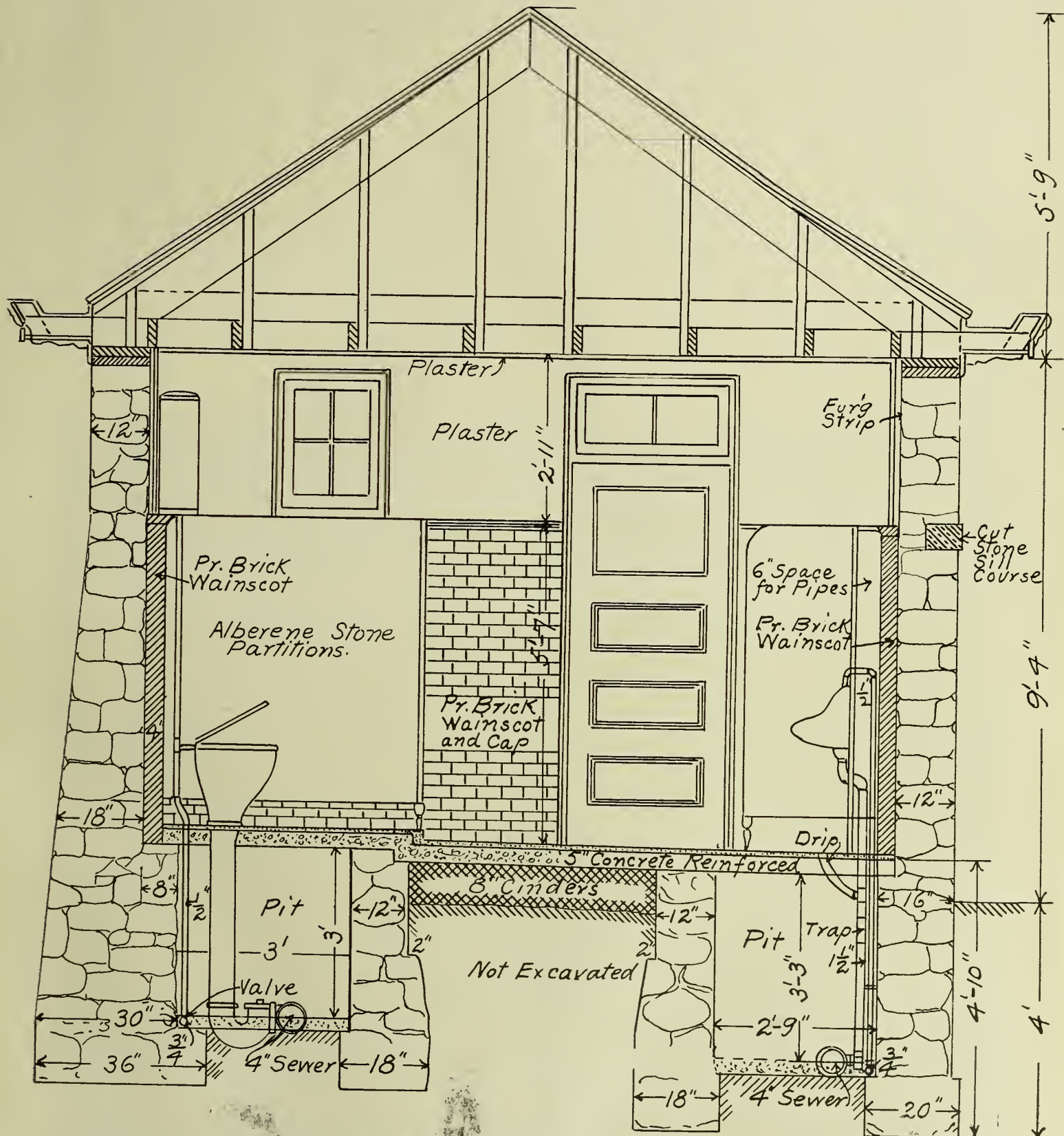


Plans for a Comfort Station in the center of the business district at Ninth and Main streets have been prepared, but were withdrawn for a time.

In Penn Valley Park within the next year it is ex-

pected to complete a playground center including ample  
baths, pools and comfort stations costing at least \$100,000  
for the compound.

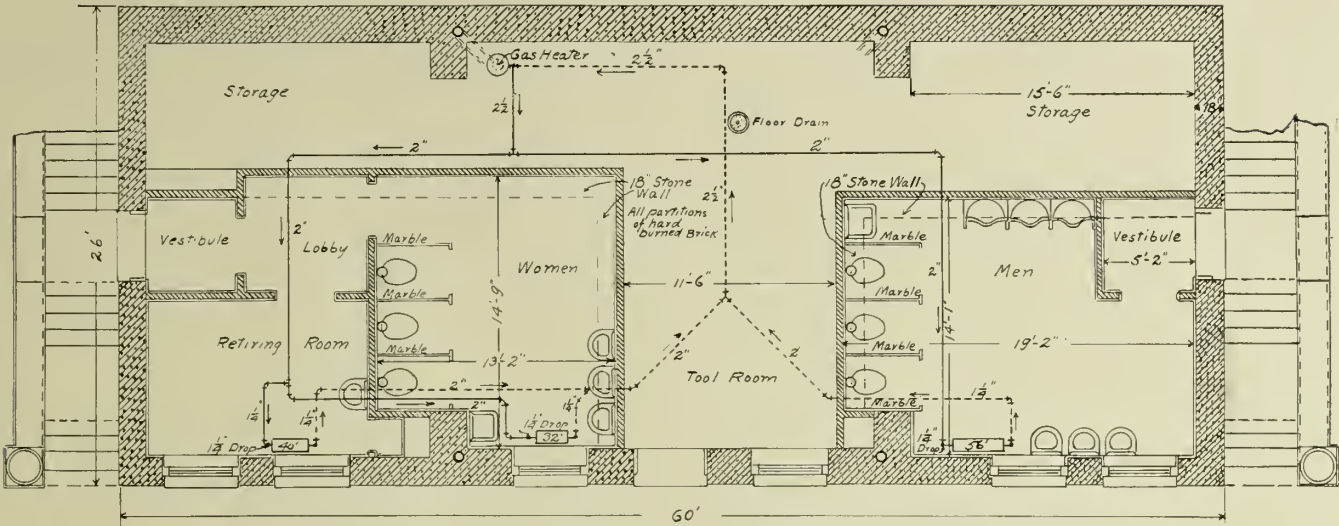
This station would be a great convenience in the busi-



Section at North End of Public Comfort Station, Gillham Road (Hyde Park).







Ground Floor Plan of Band Stand and Comfort Station, Observation Park, Kansas City.

	Index.
Stone Masonry	
Brick Masonry	
Wood	



Interior View of Comfort Station in Observation Park.



# Some Experiences in Packing Flange Joints

By W. H. WAKEMAN

AS A GENERAL rule all flange joints in my plant are packed, when they require it, by regular employes, but on a certain occasion, when a new 10-inch header was installed, the steam fitters were required to pack the joints. They were men of average intelligence, and seemed to be capable of doing good work along this line, but the result showed that they were liable to make mistakes.

When steam was turned into this header, and before the pressure exceeded 5 pounds, one of the joints leaked badly, and as a matter of course it was in the most inconvenient place in the whole line. When the gasket was removed it was found to consist of a ring cut from sheet packing, about 1 inch wide, to fit inside of the bolt holes, as illustrated in Fig. 1. This is a good idea, so far as saving packing is concerned, also because the surface in contact is comparatively small, hence the pressure caused by screwing up the nuts is high per square inch.

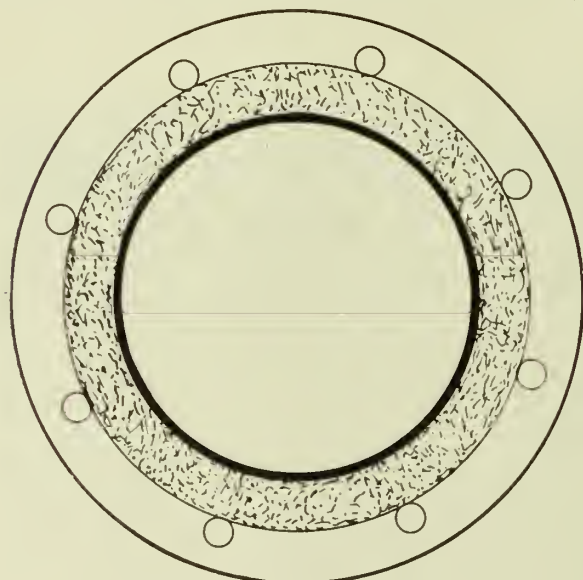


FIG. 1

Such a joint ought to hold, but it did not in this particular case, and the reason for failure is shown in Fig. 2, which is somewhat exaggerated in order to make the matter clear. Owing to heat and other uncomfortable conditions, the steam fitters were in a great hurry at this time, consequently they did not take care to screw the nuts down evenly, but turned those on one side much more than on the other. This brought the flanges to bear unfairly on the packing, as it was clamped very tight on one side and very loose on the other. This allowed steam to escape at the loose side, hence the trouble. These steam fitters were obliged to take out the bolts, as soon as steam was shut off from the headers, remove the defective gasket, and put in another, and as every part was as hot as steam could make it, the job was far from pleasant.

The second gasket covered the entire face of the flanges, as illustrated in Fig. 3. This requires more packing, as the gasket is larger in diameter, but it is a safe plan to follow, because carelessness in screwing up the nuts is less liable to cause trouble. Of course it is better to screw them up evenly, but it is practically impossible to throw them out of place, as in the case of Fig. 2.

Manufacturers of certain kinds of packing claim that if their product is used it is not necessary to "follow up" the joint. Just screw up the nuts tight when the gasket is put into place, and leave it alone. It is doubtful if this is the best plan in any case, and it certainly is not with some kinds of packing. There is more than one way,

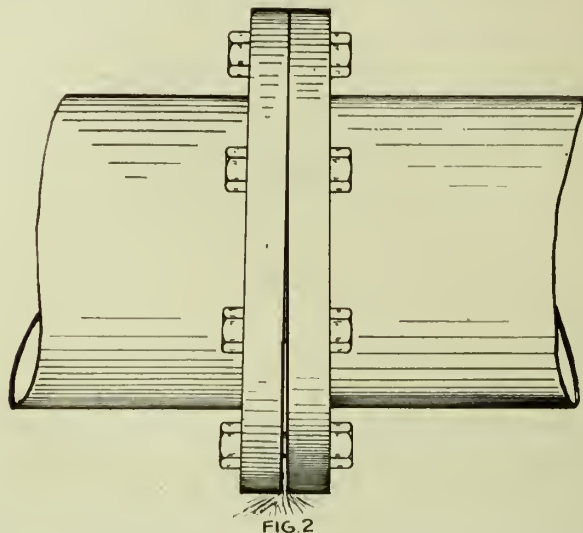


FIG. 2

however, to "follow up" a joint. Steam fitters sometimes put a gasket in place, screw the nuts as tight as possible, then turn on steam, and when the joint is warm they turn the nuts further, until the packing is forced out as shown in Fig. 4. It will not go into the pipe and form an obstruction there, thus reducing the internal diameter, be-

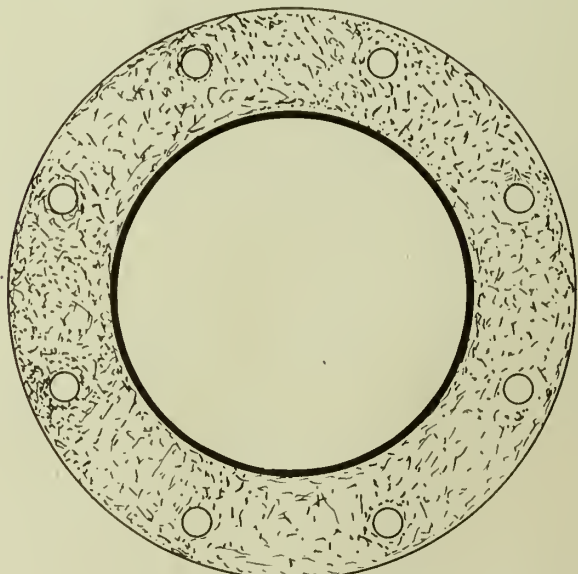


FIG. 3.

cause any attempt to do this results in compressing the packing edgewise, and is resisted accordingly.

However, the packing is not used to the best possible advantage, for it is plain that much of it is wasted. Of course it is possible to follow this plan until the flanges are brought "iron to iron" or practically in contact with

each other. There is little danger of the packing blowing out under these conditions, as there is not enough of it exposed to pressure, but much thinner packing might have been used, thus saving perhaps 50 per cent in the first cost of material.

A much better plan is to put the gasket in place, insert the bolts, and screw the nuts down as far as they will go. Turn on steam, but keep the pressure low. After the flanges are thoroughly heated, and all parts are fully expanded, shut off steam, let them cool, and the nuts will be comparatively loose. Tighten them again and repeat the process. This will result in a satisfactory and durable job, without forcing the packing out of place. I am well

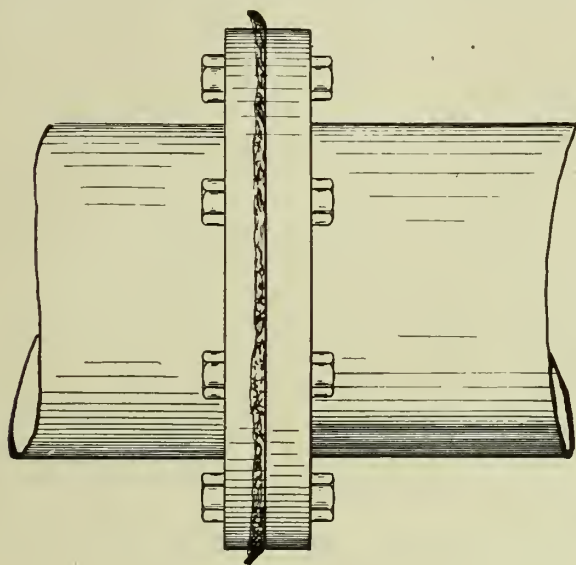


Fig. 4.

aware of the fact that this cannot always be done, because in many cases the pipe is wanted for immediate use, hence steam must be turned on and full pressure secured as soon as it is safe to do so, but even then it is a good plan to avoid screwing the nuts down hard enough to crush out the gasket.

#### SAYS MOTOR TRUCK IS A NECESSITY.

The motor truck reproduced in this column is the property of Carl P. Dahlby, a plumber, located at 736 Ger-



anium Street, St. Paul, Minn. Mr. Dahlby claims that the machine is not only a useful article, but a necessity in getting around to his many jobs. He reports a very successful year. The young man beside the truck is Mr. Dahlby's son, who expects some day to conduct his father's business.

#### THE MASTER PLUMBER AS A MERCHANT.

The average Master Plumber has many times been slow in realizing the possibilities open to him as a retailer of merchandise. He will arrange a very attractive display room for the purpose of showing up his line of plumbing and heating goods to a great advantage, but when this display has done its work and drawn the prospective buyer into his place of business, it is then up to the plumber to sell the plumbing or heating job. He may spend an hour or so doing his best to convince his prospective buyer and in the end may or may not succeed. Of course, if he does succeed he is well paid for his trouble and the display room has answered its purpose. On the other hand if he fails to sell his prospective buyer a new bath room or a new heating system the buyer gets away without spending a cent. Many times this is due to Mr. Plumber having nothing he wants but plumbing or heating systems or fixtures.

The plumber should notice the system followed by the retailer of dry goods or other merchandise. The retail merchant spends thousands of dollars annually in advertising merely to get people into the store. When he gets a prospective buyer inside his store it is then up to the selling force to sell him something before he gets out. A woman will frequently go to a department store merely to look over some dress goods she has seen advertised at an attractive figure. Before leaving the store she will purchase a number of articles she would never have remembered needing unless reminded of it by a clerk or by seeing it on a display counter or shelf.

Now, Mr. Plumber, what do you do in the way of attracting people to your place of business besides putting your name on the window and displaying plumbing fixtures? And when you do catch them what have you to sell them in case they are not just ready to place a contract for an installation of plumbing or heating goods? Why let this prospective purchaser leave without selling him something that he really needs and would appreciate being reminded of?

During a recent business trip in Ohio the writer had occasion to visit a progressive plumbing shop and was agreeably surprised to find a profitable retail business going on in the display room. The Master Plumber had made it a point to watch for everything new that appeared on the market that would go well with the heating and plumbing line and would attract attention and sell. These goods not only sell to people who call for the purpose of looking over plumbing and heating fixtures, but bring a regular run of buyers for specialties who often become interested in new heating or plumbing goods before leaving.

Among the many things a Master Plumber can sell to a very good advantage are vacuum cleaners, power washing machines, water motor fans, water filters, toilet paper, brushes and all kinds of bath room trimmings, powders and preparations for cleaning bath tubs and water closet bowls, sanitary paper towels, mirrors, bath mats, rubber pads for drain boards, etc. The man or woman in charge of the office or display room when the Master Plumber is out should be perfectly familiar with every salable article in stock and be given to understand that they are all there to be sold. The knowledge of selling learned in this line will be of assistance to the Master Plumber in selling plumbing and heating systems and fixtures.

Read again Elbert Hubbard in New Year's number.



# The Chamber of Commerce of the U. S. A.

Address of Its President, Mr. Harry Wheeler, Before the  
Central Supply Association, at Chicago, October 23, 1912

I APPRECIATE more than I can tell you the privilege of being with you in this session; yet were I to try to make a formal address, I know that it would not reach the point that we hope to reach as a result of this meeting for a short time, and I therefore cast about this morning somewhat to find a subject in which you gentlemen might be directly interested, and upon which I might be competent to speak. Knowing practically nothing about your business, I could not talk shop to you if I wished. You are not particularly interested in my business, banking, consequently it would be very foolish for me to undertake to talk to you upon any financial topic, but the thing it seems to me that all business men are interested in, is the adjustment and the settlement of those economic problems which lie absolutely underneath all of the difficulties that confront business today, which are the natural outgrowth of conditions that have arisen in the course of the evolutionary progress of our industries, and in the settlement of which the business men of the country must be the ones to direct the course of the adjustment.

Now, these problems that we have to consider are not the result of chance or accident. They are the result of industrial progress. They are nothing that we should fear, because they are natural. They are nothing that we can set aside as being unworthy of consideration, because they are real, live forces in our lives today and have got to be solved. The fact that they exist is a credit to business from many viewpoints. If the time comes when in the United States we have no such knotty, hard problems as between the people and the business interests, and between them both and the government, it will be the most serious day that the nation has ever faced, for it will indicate industrial decline.

There is a cause always for the problems of every period. If the cause is known, the remedy should not be difficult to find.

Dr. Fritz Carus of Austria, First Secretary of the Chamber of Commerce and industry of Reichenberg, and a member of the Permanent Committee of the International Congress of Chambers of Commerce, was asked relative to the things that he has seen in this country that impressed him the most, and this is the thing that impressed him more than all the other things that he had seen. Said Dr. Carus: "There lives in this country a genius for organization that exists in like degree nowhere else in the civilized world. The manner in which industries are knit together, the manner in which a

single man directs the administration of millions of property and thousands upon thousands of individual lives, is the marvel of the world, and in the United States it appears as nowhere else." And he threw out this caution: "If your people recognize the truth of the fact that this genius for organization is one of the great assets of the United States, then see to it that nothing is done by legislation, or by popular prejudice, that shall throttle the best asset the nation possesses."

Now, I think Dr. Carus has struck a note that every business man should deeply consider. Let us go back for a little bit over the history of our commercial development, and see how the conditions of today have naturally arisen. How many years ago was it when, in order that railroads might be built more rapidly and offer facilities for transporting the wealth of our natural resources to a waiting market, land grants were given, terminals provided, bonds guaranteed—nation, states, counties, and even towns, giving with prodigal generosity, that this development should proceed without interruption?

During this same period of railroad construction was not the same treatment accorded to our industries? Bonuses of land, buildings, and even money and exemption from taxes, were given, sometimes wisely, often foolishly, that new industrial centers might be established in cities and towns once devoid of industrial life, and as if to add good measure, the Federal Government spread over these industries the sheltering wing of a protective tariff.

All this public favor tended to make these beneficiaries selfish, and often arrogant, until, like the spoiled child, the business life of the country rebelled when denied the right to proceed, undisciplined and unrestrained, ready to strike the hand that had given real aid in time of need.

There is in this result nothing that is surprising, and there is nothing that need be unexpected. It is an absolutely natural condition that we should reap what we have sown. Then came the revolt, and that as a perfectly natural

sequence of the other condition. The revolt does not arise in the minds of the rank and file of the people because of great wrongs from which they suffer, nor would it continue but for the violent agitation by men who are more selfish in their efforts at self-aggrandizement than the most selfish industries that exist in this country have been as for themselves against the people,—men who have gone up and down this country inflaming the popular mind against business,—not against an individual interest, nor against one line of



Mr. Harry Wheeler, President,  
Chamber of Commerce of the U. S. A.

business that has been an offender, but all business, whether it be carrier or manufacturer or distributor, has been put in the same class (the predatory class) preying upon the people and preying upon each other, until unthinking people are led to believe that unless the government increases its supervision, ultimately business will dominate everything and the people at large will be the slaves of the "interests" (whatever these may be).

We might discuss along the same line the attitude of the press upon this matter, the willingness to give headlines on the front page to an attack upon business, the disposition to disregard the things that are done by the employer for the employe that represent a distinct step in advance in the relations between the two; trade papers are not altogether guiltless, and you men in an association like this, with papers that are close to your own line of work, can do no better thing than to urge those who control the trade papers of the country to denounce false denunciation of business, and to see to it that instead of spreading these attacks broadcast, they be throttled where they should be throttled, in the editorial offices of the press itself. (Applause.)

Now, you want to know how we are going to remedy these conditions. My answer is: You are a member of an organization with which I happen to be connected. That organization is the Chamber of Commerce of the United States of America. It was formed six months ago, after a conference had been held by business men called together at the instance of the President, representing all but two states in the union, representing all of the insular possessions, representing the American chambers of commerce in Berlin and Constantinople and Paris—some seven hundred delegates in all—and the result of the deliberations of that body was the formation of the Chamber of Commerce of the United States of America, and its control was placed in the hands of a board of directors representative of all sections of the country and chosen by geographical lines, so that no state or group of states should be without an immediate voice in the council of the new chamber. In addition to that, every organization that might be part of the Chamber of Commerce was invited to appoint a National Councilor, and that Council will be the body that will, under certain conditions, dominate the Board of Directors, because should a member of the Chamber of Commerce of the United States, under the by-laws that have been adopted, ask the intervention of the chamber upon some question vital to its own interest, and the Board of Directors decline to take action, there is recourse to the National Council, and if the National Council, by a majority vote, says that it is a national question and should be considered by the Chamber, the Board of Directors is thereby overruled, and the Council, which represents the constituent members, is the governing body upon that particular subject.

Where is the relationship between the things that we have just been discussing and the Chamber of Commerce?

To my mind the relationship is this: Individual organizations, no matter how powerful they may be—your own Association, the American Manufacturers' Association, the American Meat Packers' Association, which met here last week—all represent individual interest or community interest. If any of these makes an appeal to the National Congress, the State Legislature, or the Executive, your appeal is quite sure to be treated as an appeal from a selfish interest and directed toward selfish ends. There may be no justice in this conclusion, for your appeal may be founded upon the most open, broad-minded proposition that could be offered, and yet the very moment that a single interest, organized for its own general betterment, presents a proposal, that very moment the suggestion of a selfish interest is raised, and the question does not receive either unprejudiced, impartial or fair consideration.

That is just as true of community organizations, such as the chambers of commerce and boards of trade of the country, which, like your own organization, form a part of this National Chamber. When one of those bodies brings up a question for legislation, Congress assumes that the locality is interested in it and that the petition is for the benefit of that particular locality.

These organizations have multiplied marvelously within the last ten years, until every city and hamlet has one or more civic, commercial and trade organization. The records of our Chamber of Commerce would amuse you if you could see towns of four and five thousand inhabitants with four and five business organizations. All of this means disorganization and distribution without the ability to concentrate. The result has been that neither in Congress nor in the Executive Department at Washington can the advice and counsel of these independent disorganized groups of men be taken as a reasonable expression of the business sense of the country at large, and for that reason we have been often impotent as business men in our influence upon legislation and upon executive rulings.

Other great national interests are not so disorganized. Labor voices its demands nationally through the American Federation of Labor. Agriculture through the National Grange or National Farmers' Union. When these organizations interest themselves in some piece of national legislation, our Congressmen give heed to the opinions expressed because it is known that the power of great numbers is merged into these organizations.

Let this Chamber of Commerce of the United States represent for our commercial interests what these other national factors do for their respective interests—a central body and a central voice that can speak for all the business of the country, not expressing the judgment of its Board of Directors, but securing by referendum to all of its constituent bodies, an authoritative, intelligent and fair conclusion upon any legislative question, and empowered to present such conclusion to Congress as the business opinion of the United States of America.

There are three problems that I would like to have you specially consider, since in the course of the next few months you will be requested to vote upon certain phases of these questions through the Chamber of Commerce of the United States. When a proposal is made, it must be made as the result of a formal resolution passed by one of the constituent members, and sent to the Chamber in order that it may be put into a brief or digest and presented to the other members for their consideration. The question will be presented for referendum, and the arguments for and against will be given as clearly as it is possible to express them. The statement will give the action that is desired by the proposing member, and you as an organization will be asked to cast your vote upon each particular question which will be submitted, whether you are for the solution that is proposed, or whether you are against it, and so carefully have we tried to safeguard this matter of initiative, that no question can come before the Chamber of Commerce as a whole unless brought to us by the formal resolution of a constituent member, and no question can be set aside simply because the membership may not first have voted two-thirds of them in favor of its adoption; but if more than one-third and less than two-thirds favor the adoption of the proposition, but not enough to carry, then the proposing member has the right to take the negative arguments that have been advanced by the various constituent members of the Chamber, and reframe his arguments in favor of his proposition; then this reframed matter will again be submitted, in order that every member may have the last word of light that may be shed upon that particular question, and not be asked to jump at conclusions, but to reach a wise and sane con-



clusion based upon the facts as nearly as they can be found and presented for consideration.

There can be nothing unsafe in such a procedure, and I tell you when the judgment of the people of this country, representing all lines of business, is presented to the executive, or to the members of any legislative body, based upon such a referendum and upon such a careful consideration, it will enjoy, for the first time in the history of commerce, that recognition which will result in embodying in the legislation under consideration those provisions needed by our business interests. (Applause.)

Now, these are the three questions that are to come up:

State and federal regulation of domestic commerce. Out of the abuses that have come as the perfectly natural outgrowth of the increase of our industries, and because of the fact that business itself has outstripped legislation at every point, has come the fact that the best legal minds of the country have been given the task of finding ways and means for doing the things that commerce must do and for which it has no definite authority and without which it would have been crippled and decrepit long since, all of which has led up to the situation which is now confronting us with respect to the law we sorely need for the control of our domestic commerce.

The opinion of the country, as represented by the man on the street, is not very favorable to business, but thoughtful men, economists and the more intelligent class of men who are employed, as well as those who have to do with our legislation, are rapidly turning from a chronic state of antagonism to a willingness to find a solution that will be helpful rather than harmful to the business interests of our country.

If combinations had always been made for the purpose of greater efficiency of service to the people as well as service to those who were stockholders, there would never have been very much agitation on this subject, but the fact of the matter is that always back in the minds of the people at large is the fact that no combination has been made that has not paid its tax in an unwarranted sum, and often in a most unwarranted manner, to those who have promoted it. Whether it be a railroad corporation, or whether it be industrial, the same condition applies and the same prejudice has been created in the minds of the people.

Now, gentlemen, if we were to try to delude ourselves with the idea that those conditions do not exist, we would be very foolish—we would be very unfair with ourselves. They do exist and they are going to exist until sane laws are passed permitting business men to know what they may and what they may not do. Uncertainty has been one of the most serious stumbling blocks to business, in not making plain just how far the law will permit either certain corporate combinations or certain agreements between separately owned plants covering the production and distribution of certain classes of products.

There is, I believe, a growing sentiment which will ultimately remove the objection to combination, whether it be the combination of plants under individual control, or whether it be the combination of separately owned plants in a price combination properly safeguarded in so far as the people at large are concerned, in order that the dangers of unbridled competition, which now exist in many lines of business, may be checked, and that we may remove conditions which not only endanger the industries themselves, but come close to endangering the credit of the country. (Applause.)

The problem of enacting certain permissive legislation must be wisely and fairly solved. Personally it seems to me that the greatest favor is tending now toward a trade commission, and this suggestion has elements of value which I

believe we should very closely consider. A combination of plants under a single corporate control, or a combination or trade agreement between independent plants, should not be made unlawful as long as there is supervisory power which will make the operation of those plants, and the price placed upon their products, fair to the people at large. If that corporation or combination may do as corporations have done in the past—undersell in A's territory to drive A out of business because A will not come in their combination, and advance the price in B's territory in order to pay the profits that are lost in A's, they deserve to be ruled out of the game, because there is nothing square in it, and there is no business man here today that would not say, "Rule them out and I will help to do it." (Applause.)

For one man that is selfishly abusing the privilege that he holds, there are ten thousand men in business who hold sane views today, and who, lined up, would be solidly against the individual who abuses the power which has been placed in his hands. (Applause.)

In this belief, the Chamber of Commerce of the United States of America will endeavor, through a standing committee, to soberly study this question and endeavor to convince Congress that business men do not all belong in the so-called predatory class, that the business mind of the country is not diseased, but that combinations properly regulated are an economic necessity in some lines of endeavor, and an advantage in others, and that proper regulation will not be unwelcome to the business interests generally.

The second point is this: In the last session of Congress, the one really forward movement that was made with respect to a method of tariff revision was killed. Now, I hold no brief for the Tariff Board, nor yet for a Tariff Commission, but the Tariff Board was the first step that has been taken in this country out of the old and very unsatisfactory condition that has created unrest through all the years of our business experience into a hopeful condition that when subsequent revision of tariff schedules comes, it should come schedule by schedule, and after a thoroughly exhaustive review of the difference in the cost of production as between our own country and other countries, and preserving that protection representing the difference in labor cost and such other fundamentals as would prevent foreign competitors undermining our existing industries. While the Tariff Board is no more, the principle is not dead. The fact that the failure of an appropriation allowed the Tariff Board to die a natural death will not destroy the influence of the work that Board has done, and the more consideration that is given to its reports upon the schedules which were completed, and the more they are studied by economists, there will be found in them the answer as to why that same kind of a board, or something approaching it, should be considered for the future.

Now, as far as individual schedules are concerned, the Chamber of Commerce of the United States would destroy itself if it undertook to discuss the individual schedules. You are going to discuss schedules in your Association probably, and other trade and community organizations will do likewise, but the Chamber of Commerce of the United States can consider with you only the manner of revision. Should we continue to revise our tariff schedules in the old way with which you are so familiar, and which has resulted in so much retarding of business and loss of wages to workmen, or should we have some advisory power, as they have in Germany, where schedules may be examined upon their merits, where the differences may be widely considered by an examination, not only of the plants in our own country, but in other countries that compete with us on that commodity, and then let us all join together and say, if such examination shows that there should be a downward revision,

why, let us have a downward revision (applause), only insisting that there should be a sufficient limit of time given before the new law becomes effective, in order that interests likely to be adversely affected by the downward revision shall have an opportunity to readjust themselves to the new conditions. (Applause.)

The third is this: If we reach an agreement upon the regulation of interstate commerce, if we have a settled policy as to the manner by which the tariff shall be revised, and have a banking system that is as faulty as the banking system under which we are working today, we will gain but little advantage. These other two problems are of vital importance, but overshadowing them all is the one which leads up to a revision of our banking and currency laws. For fifty years our present system has served us for better or worse. It was created at a time when conditions were not in any sense comparable to the conditions that exist today. It was the wisest and the best thing that could be offered at that time under existing circumstances; but laws, like customs, become obsolete. Our banking laws have become obsolete. No civilized country on this entire globe would be content to allow its business to rest under such laws as we now possess.

Two weeks ago I met a young German in this city who had been sent over by his father, who was head of one of the large German banking houses, to study the American banking system before taking his place in his father's banking house. The old gentleman wanted him to see what kind of a system we were doing business under here in America. He had been here for six months—a fine upstanding, intelligent young German, a man of good family and a man whose family had been in the banking business for years upon years. He was himself going to follow the profession of his father, and I said to him: "Have you learned anything as the result of your six months' stay in this country with regard to our banking system?" He said: "Yes, sir; I have learned several things, and all of them are negative, and in every case I have learned to know that the thing to steer clear from in Germany is the thing that I have learned in this country." Now, here he is going back home, and he is going to be a good banker. He knows the weakness of our system, he knows the strength of the German; but it seems too bad that men from competing commercial nations, like Germany, whose competition we must meet, not only in this country, but in every market in the world where we hope to place our merchandise, and whose commerce is largely founded upon its financial system—it seems too bad that young men of the German banking houses should come over here and get that very bad impression of our banking system.

Now, we have had some efforts made toward revision. The Monetary Commission presented its bill, which was pigeonholed in Congress because it bore the name of a very unpopular man to begin with. The Monetary Commission's bill was a pretty good bill, but it could have no unprejudiced consideration with Senator Aldrich's name at the head, and the very fact that it was known as the Aldrich bill was perhaps the most serious handicap that it suffered. Again, it was supposed to be a party measure, brought out by a commission the majority of whose members were of Republican persuasion, and it got into the hands of a committee on banking and currency of Democratic persuasion in the House of Representatives and they proceeded to throttle it, and produced nothing in its place.

But this is the fact. This banking system of ours would have given us trouble these last four or five years but for the goodness of Providence in giving us not only exceptional crops, but exceptional prices and a prosperity not of our own making, that came to us as a gift from the outside. If we had not been so blest from 1907 down to the present time,

this old, decrepit banking system of ours would have long since given way under the pressure, and we would have been floating around, trying to find a place to lodge, with all our great industries and commercial interests at sea because of the inability to trust themselves to a banking system that was entirely out of date.

Today where our banking system is weak is in the lack of confidence of the people themselves that they will be able to possess, at the time they want it, the money which is theirs in the banks. There is no lack of money circulation per capita for all the business that this country has today, but let A go to his bank and withdraw his deposit and put it into a safety deposit box on the ground that he believes there is a coming change of administration that will bring a certain upheaval in business, and because the new administration may not be as favored and privileged as the old administration, he may not be able to get his money when he wants it, and he will take it now and put it away where he can go and get it out as he may need to use it, and A will tell B what he has done, and B tells C, and so it goes, and each man in turn does the same thing, and in an incredibly short time the banks note the fact that there are withdrawals being made that are not going back into commercial life, and what do they do? In self-protection they begin to pile up their reserves against the day when this demand will increase. Instead of 10, 15, 20 or 30 per cent, they will pile reserves of 50 per cent, and they will draw in their credits in order that they may be prepared to face the approaching storm. Don't you see that double action, the withdrawal of money from circulation by individuals, and the withdrawal of money from commerce by the banks being forced to strengthen their own reserve against that day when they may be called upon to pay, is what brings about financial panics?

Suppose the people of this country, on the other hand, knew that when a bank had loaned its money upon the best security, or upon the best names that were available to it, and there was a greater demand upon it for more money, in that case this bank could take its liquid assets of short time commercial paper direct to a reserve association, created by law and maintained for the sole purpose, and rediscount that paper, and could do so with all of its like assets, so that it could, if called upon, pay its depositors 100 cents on the dollar, and the individual depositor says: "Well, I can always get my money, because if my bank has been reasonably careful" (and a man is supposed to have chosen a careful bank), "they can rediscount their assets and pay me back at any time that I may want it, and therefore I will not take it," and your circulating medium will then be sufficient for all the needs of business as it is sufficient today.

To stimulate that confidence is the thing that must be done, and that is the reason we need a new banking law, a banking law that will adjust itself automatically to the variations of the commercial demand, and through the proper organized agencies, whether they be called reserve associations, or by some other name, to direct the flow of money into those sections of the country where the demand is strong commercially instead of concentrating funds in the country's centers of speculation.

These are the things that will come up for your consideration, and that we are going to try to present to you as rapidly as briefs can be written in the clearest manner in which these subjects can possibly be treated. We want your judgment, we want your best counsel, we want your advice, and we want your support.

This organization, the Chamber of Commerce of the United States of America, is fraught with the greatest of good to this country. There is no other great commercial nation but has its national Chamber of Commerce, and that national



Chamber of Commerce speaks as ours may ultimately come to speak, based on the judgment of the business men of the entire country as a whole. Without it we will continue to drift. With it, and supported by the enthusiasm and the courage and the sacrifice which men must make to create a force of that kind, we will find our business gradually growing better; we will find a public sentiment that will be more favorable to business, and a recognition that there is nowhere

in this country, taken as a whole, a body of men more unselfish, that are more given to consider the public good, that are more willing to regard the welfare of their employes and their families, that are more willing to carry the load and oftentimes divide an infinitely larger share of the profits than might be justly demanded with the employes, than the business men of today. (Prolonged applause.)

Mr. Wheeler's speech was greatly appreciated.

## Some Phases of the Mechanic's Lien Law

By WM. H. BURQUEST

The new clause in building specifications, covering the change in the mechanic's lien law as fixed by a decision of the Illinois Supreme court is meeting with both approval and disapproval on the part of master plumbers in Chicago and others interested in the building trades.

Under the old interpretation of the law, a plumber for instance, who had a sub-contract had a right if necessary to file a lien on the owner or owners of a building, as had also the manufacturer of materials, and the individual laboring man. But according to the decision of the court these three parties must waive their rights to a lien if a waiver of lien has been given the owner of the building by the general contractor.

The decision of the Supreme court of Illinois on the rights of sub-contractors to a lien as stated briefly in a bulletin sent out by the Building Construction Employers Association, some time ago, reads as follows:

"The Supreme Court has already held (*Williams vs Rittenhouse & Embree Co.*, 64 N. E. 995 and *Von Platen & Dick vs. Winterbotham*, 67 N. E. 843) that the only right to lien to which a sub-contractor for work, labor or material is entitled, is derived from the contract between the original contractor and the owner, and that if such a contract provides there shall be no lien on the improved property for material and labor furnished by the original contractor, such a contract binding upon a sub-contractor, and a sub-contractor where a lien has been waived in the original contract, has no lien for material or labor.

"The court now goes further and says in the *Kelly vs. Johnson* case, that the right to a lien under the original contract may be waived by the original contractor after the execution of such a contract and that all sub-contractors under such original contract furnishing labor or material under contract dated after a waiver of lien has been given, will have no right to lien, also that any law passed by the Legislature attempting to deprive the owner or the general contractor of the right to make contracts waiving the power to a lien would be unconstitutional."

E. M. Craig, Secretary,

Building Construction Employers Association.

In discussing the merits and demerits of the change in the law, Mr. Craig said: "The only protection the sub-contractor has, is for him to make a contract direct with the owner or owners of a building, instead of with the general contractor. In signing up with the latter he should be quite sure that he, the general contractor, is safe financially, otherwise the sub-contractor might be ruined from a financial standpoint.

"The manufacturer of material is also affected by this new interpretation of the law. He has now to take special care to ascertain the financial stability of both the general

contractor and sub-contractor, when a waiver of lien is given, otherwise he stands a good chance of losing out financially by the deal.

"While the change in the mechanic's lien law may hit the sub-contractors hard and work an apparent hardship on some of the reliable and worthy ones, nevertheless in the final analysis, it is a pretty good law, because it tends to make both the general and sub-contractors better and more trustworthy men to deal with. Then it also eliminates from the market the irresponsible general contractor to whom so many evils have been attributed in the past."

The senior member of a well known local plumbing firm, in giving his opinion of the lien law as now interpreted, declared that it was an unjust decision. "Under this ruling by the Supreme Court it is not advisable for a sub-contracting plumber to take any contracts through a general contractor," said he. "The plumber should seek to be an original contractor, and deal direct with the owner. Then his rights will be protected.

"As I understand it, a general contractor in making a contract with an owner or an architect may waive his rights to a lien on the building. If he does so all sub-contractors are subject to that agreement between the general contractor and owner. Thus the small sub-contractor is placed in a position where he cannot file a lien for his own protection against the building, because his rights are signed away by the general contractor who has given the owner or architect a waiver of lien.

"Plumbers are familiar enough with the difficulties they sometimes have with general contractors, and how irresponsible they are in many cases. Therefore it is very desirable that the plumber should strive for the separation of plumbing from the general contract."

Another prominent master plumber of Chicago in discussing the new lien proposition, said that while he believed it was a decided improvement on the old version, it would be a still greater improvement if the Supreme Court of the state would declare the mechanic's lien law null and void in its entirety—abolish it.

"To my way of thinking, there should be no mechanic's lien law," said this master plumber. "Then, under such an understanding of the law, an owner of a building and the contractors would have to prove beyond a shadow of a doubt that they were O. K. financially. Irresponsibility on the part of owner or general contractor should be prevented by special laws. If such were the case there would be no occasion for the existence of a mechanic's lien law. This would wipe out the risky men in the building line, and improve matters for all concerned."

# Chicago Sanitary Inspector Testifies in Gotham

**C**HARLES B. BALL, chief inspector, sanitary bureau of the department of health, Chicago, was one of the star witnesses to appear before the Curran aldermanic committee of New York on December 27th. The committee was appointed to investigate the efficiency of the police department of the city of New York.

Mr. Ball prior to testifying, made a thorough and systematic inspection of the sanitary aspects of life in the police stations of Gotham. He was called to the eastern city for this purpose, and for his expert advice by the New York authorities.

He found many hygienic shortcomings in his tour of inspection, and he imparted to the committee in a frank manner, the result of his observations. He pointed out to the aldermen that bad air, lack of sunshine, and damp walls, create conditions in which human beings cannot be normal, clean and morally decent, and "that you can't get the right kind of moral fibre in a man who dwells in the dark."

Some of the interesting testimony of Mr. Ball before the committee follows thus:

Examination by Mr. Buckner:

Q. What are your initials, Mr. Ball? A. Charles B. Ball.

Q. What is your present official position? A. Chief Sanitary Inspector of the Department of Health of the city of Chicago.

Q. How long have you held that particular position? A. I have actually served in that position about six years. I have held it technically as the result of a civil service examination since 1904. There was some legal question in connection with that, so I did not actually serve during that entire period.

Alderman Dowling—Are you a doctor? A. No, I am not a doctor. I am a civil engineer by profession.

Q. What experience have you had before you occupied your present position in a sanitary way? A. Fifteen years in the service of the District of Columbia, the City of Washington, half of which I was inspector of plumbing and secretary of the Plumbing Board of the District of Columbia, for most of the seven years. I was head of a bureau in the Tenement House Department from the time of its organization by Mr. De Forest, during the period of time that he was commissioner, 1902, and 1903.

Q. Have you made an inspection of station houses from a sanitary standpoint at my request the past week or ten days? A. Yes, I have been able in the last week to get over twenty-eight station houses in all.

Q. Mr. Ball, how many station houses were you able to cover? A. I have been through twenty-eight. One or two of them are subject to replacement, like the one on First avenue and Fifth street, so I did not make as thorough an examination as I perhaps ordinarily would have made. But it has been a rather careful examination, filling out a schedule which was prepared for the purpose, in considerable detail.

Q. Have you included both new and old? A. Yes. Practically in their order in Manhattan, besides taking four on Staten Island and one in Brooklyn. It includes five new houses, I believe.

Q. Now, will you just state to the committee the general results and conclusions of the inspection you have made, including architecture and maintenance? Whether the possibilities are there for good sanitary conditions, and whether those conditions are maintained. Give us

the best and worst that you can say as to all of them. A. The standards which it seems to me should be applied to station houses are those that would apply to habitations. I am not willing to consider a station house primarily as an armory or a prison or as anything else than a house in which men are to live, because that, to my mind, is the primary function of a station house. To afford suitable houses. Now, one of the most common defects that I found, and one of which there is perhaps as little general appreciation as anything, was the presence of the foul cellar air, not alone in the cellar, but in such situations that it goes through the house. That is, excepting in certain instances that I have noted—



Chas. B. Ball, Chief Sanitary Inspector, Chicago.

Alderman Dowling (interrupting)—One minute, counselor, will you name the precincts, because we have some very new station houses within a year or two. Then we have some very old ones.

The Witness—I have prepared a list here which will cover most of them.

Mr. Buckner—He will go into details when he gets through with the general statements.

Q. Just go ahead with the general statements, and then with the details. A. There are many old houses in which the cellars contain bad air. They are illy ventilated, they are used as storehouses for fuel. They are used as storehouses for rubbish; they are used to some extent for living purposes. They contain toilet accommodations, and all those things make foul air, which permeates the house.

Alderman Dowling—You mean the patrolmen live in them; is that what you mean?

The Witness—I mean that the cellar air rises up through the rest of the house.

Alderman Dowling—Where do they sleep?

Alderman Esterbrook—You said that they are used for sleeping purposes?

The Witness—If I said that I made a mistake. They are used for living purposes to some extent.

Q. You mean the patrolmen? A. Yes. You will find men reading occasionally in the cellar.

Q. In the cellar? A. Yes, that is done in a number of cases. The houses that I have noted here are the 5th Precinct at Oak street, the 7th Precinct, the 17th, the old house at Church and Houston streets. And the 6th, at Elizabeth street.



A. (continuing) That is one of the worst with respect to bad cellar conditions. There are at least six or eight others that could be picked out of the list I named as having bad cellar air, foul toilets, partly by the storage of old rubbish and material and lack of cleanliness, which air goes through the whole house.

By Alderman Folks:

Q. Mr. Ball, to what extent is that condition temporary or necessarily permanent, do you think? A. It is not altogether necessary on account of the fact that we found one or two houses, one that I think I can give you, in which there are absolutely no accumulation of rubbish; that was the 35th Precinct.

By Alderman Dowling:

Q. Where is that located? A. East 88th street.

By Mr. Buckner:

Q. Who is the Captain? A. (continuing) That is a thoroughly clean cellar from end to end, and was found also to be aired. I think there was only one there of the 28 in which I found the cellar windows open at all.

Q. Who is the Captain up there? A. I don't know myself.

Q. You don't know. All right. A. I remember one case in which windows opening in a front area intended to afford light and ventilation to the cellar, were closed up with wooden covers like hatchways on board ship, in order to prevent any air and light getting in there. I remember the Stapleton House on Staten Island, which has a space originally of ten feet or thereabouts between the cellhouse on the rear and the rear wall of the building, and it has been shut in with an enclosure of that space so that it is out of question for the cellar to get any air. Those are cases that I recall. That situation with respect to cellar air is accentuated by the dampness of the cells and the well footings, which occurs in a very large proportion of the old houses.

Q. That is a thing that could only be remedied by building a new house, I suppose? A. It is not altogether so. There are sometimes causes which to an extent can be obviated.

Q. As to what? A. (continuing) As in one case where, for instance, there is a shower room in the cellar, and that shower room has absolutely unprotected brick walls about it; not even plastered. Those walls are so soft that the dampness is carried from the shower walls quite a considerable distance, and I found a very damp wall about 18 inches above the cellar wall, and I could not explain it until I discovered it was adjacent to the shower.

Q. Then its general — A. (continuing) And then there are other houses in which the dampness is due, to a very large extent, to a lack of adequate paving in open spaces, either in the rear courts or in the side shafts.

Q. As you proceed into that, distinguished between such conditions as you think are due to ordinary maintenance, which might be remedied tomorrow, and conditions which ought to be removed by the Board of Estimate and Board of Alderman? A. Yesterday I came across, in the office of the Superintendent of Buildings, a memorandum of the inspection of these old houses, made by Mr. Lee, who was one of my associates in the Tenement House Department, and is now dead, giving in detail conditions of dampness prevailing in a lot of these old houses. There were thirteen houses in that list, of which I examined his record, and compared them with my own, and in at least half of that number, six or eight, the same condition prevailed in 1895, 17 years ago, that prevailed at the present time. Now, those, of course, are, in general, permanent conditions.

Alderman Smith—Mr. Buckner, will you tell part of this Committee what your object in putting Mr. Ball on the stand here is?

By Mr. Buckner:

Q. Well, Mr. Ball, as a man of experience in your line, what has bad cellar air to do with the health and morals of the police department? A. Oh, I believe in the broadest way that bad housing of persons—

Alderman Smith—Is that in answer to my question, Mr. Buckner?

Mr. Buckner—I thought that he was more expert than I.

Alderman Smith—Will you please just investigate the police department and not come and ask us to hear that somebody would recommend sanitary work there. Now, the policemen are only too anxious themselves to have that done without your bringing a man here and wasting our time and wasting his time here.

Mr. Buckner—I thought we would be glad to learn the facts, and see if the policemen had a decent place to sleep. I don't know. Do you?

Alderman Smith—Apparently you do not look for the policemen to sleep. You are looking to convict, from what I understand.

Mr. Buckner—Oh, no; oh, no.

Alderman Esterbrook—I think the Alderman has a misunderstanding of the whole question.

Alderman Smith—I do not see the use of wasting the Committee's time bringing Mr. Ball on the stand two months ahead of time.

Mr. Buckner—I think it is important to see whether these policemen have a nice, clean place to rest in and sleep in, whether we are treating them squarely. We are here not only to turn up the manure, but to take the manure and fertilize something, so that you can improve it.

Alderman Smith—I do not think you are fertilizing much now, wasting our time here.

Alderman Esterbrook—I move that counsel proceed.

Alderman Folks—I move that we proceed.

The Witness—This dampness of the walls—

Alderman Smith—I think you should let Mr. Ball answer the question.

Mr. Buckner—Yes.

By Mr. Buckner:

Q. The question is, Mr. Ball, as a man of your experience in your line, what has bad cellar air to do with the health and morals of the Police Department? A. I believe it is fully demonstrated that bad housing, that is, conditions of bad air, lack of sunshine, lack of ventilation, improper plumbing, illy maintained leaky roof and damp walls and so on create conditions in which human beings cannot come to normal activity, either of mind or body, and which tend to degradation and to degeneracy of the race.

A. (continuing) I believe a policeman cannot be normal and fit for police service unless he has the right kind of a place to sleep, unless he has those conveniences which we consider adjuncts to proper civilized habitations.

Alderman Dowling—Do you think it affects the morality of these men?

The Witness—I believe it does, yes.

Alderman Dowling—Vitiates their morality?

The Witness—I believe so; yes sir, I believe you cannot get the right kind of moral fibre out of a man that habitually breathes bad air.

Mr. Buckner—Go ahead.

The Witness—The dampness of the wall footings I have noted especially in the 5th, in the 7th, which was

one of those referred to in Mr. Lee's report in 1895. The 160th, Brooklyn, Precinct, the 6th—

Alderman Esterbrook—Where is that 160th?

The Witness—It is on Bedford avenue, corner of First, in Brooklyn. That is the only Brooklyn one that I was able to take time to see. The 6th, Elizabeth street, the case where the shower bath causes the dampness in the walls. The 81st, in West Brighton, where the walls of the building are in contact with damp earth, outside, and constantly saturated with dampness.

Alderman Dowling—Was that a dwelling house—before it was Greater New York?

The Witness—It was the Y. M. C. A. Building, I understand. It is a leased building which has been leased for quite a number of years.

Alderman Dowling—Since the Greater New York City, I think they leased it.

The Witness—But one especially bad case is the 21st, in East 22d street. This is especially bad because of the defective drainage of the building; the sewage overflow to the depth of 18 inches or two feet. It was perfectly evident as soon as I saw those walls that there was some kind of a constant aggravated cause of dampness in it. The further part which I had in mind was with regard to the overcrowding of the rooms. This occurs in various degrees in various station houses. It has been said in an official statement that there were many cases in which the beds were so close together that a man could not get into his own bed without crawling over his fellow; and that is the truth. Perhaps the easiest way to see that it actually so occurs is from the fact that we can see the original lockers which were built, in showing the intention when the building was designed. As, for example, in the 26th Precinct, on 47th street, 18 lockers were provided for each of the big dormitories; each of those have now about 29 beds, showing the overcrowding which I referred to. That house, they tell me, quartered 164 men. The memorandum made in Mr. Lee's report of 1895 shows that it then had 124 men. Those are perfectly definite facts. The 28th Precinct, on West 68th street, has 16 lockers, provided by the architect when the building was built; it now contains about twenty-five beds per room. The 17th Precinct, on Madison street, has now 103 men and had 71 in 1895. The 16th, on Mercer street, has 117 men now and had 92 in 1895. Now, consideration should be given in connection with these facts to the further fact that the present arrangement of reserve is so that never do twenty-nine men sleep at the same time in the twenty-nine beds in one of the dormitories, but the twenty-nine beds are all occupied at various times, and the convenience and comfort and air supply of the men must to a degree depend upon the fact that the rooms are so crowded. The highest percentage which I found occupied, I think, in one of the rooms, has been about half the beds. But that is above the ordinary average. This overcrowding and bad air conditions are largely due to the indisposition of the men in the rooms and the lack of supervision on the part of the supervising officers requiring that they avail themselves of the means of ventilation provided.

Alderman Dowling—Well, you take for instance—one minute. Suppose you take a man who is out all night during eight hours, a cold winter's night, do you think he ought to have the windows open when he comes in?

The Witness—I certainly do. Now, then, that is also involving another function which I shall speak of in a moment; that is, the amount of heating. There are some buildings in which there is absolutely no heating in the dormitories at all, where, if a man comes in cold and

tired, he has got to go into a cold bed that cannot be warmed or heated from one year's end to the other. Of course we know that is a condition which does not tend to efficiency and comfort and satisfaction on the part of the men. In the 21st Precinct and in the 160th Precinct there are large hall transoms there which are clearly never opened. That is also true in the new building, the 23d Precinct, where there are splendid accommodations of that kind and where in that new building we found the air stale in a good many of the dormitories visited. It is certainly true, in the large stable, where the temporary facilities of the 18th, I believe are found—that room was originally a stable—has stable odors throughout the first floor which permeated to the second and third floors, and which is the room which is so far remote from the windows that it is impossible even to get air across it.

Alderman Dowling—That is only temporary; they are putting a new one up on the 20th.

The Witness—That is true. It probably will not prevail for many months longer. It should not prevail at all. Now, the 10th, the building in Macdougall street, I could not make any other comment on the air that is in some of those rooms than to say that it fairly stunk. It was as offensive as any air that I ever found in a sleeping room. It is also true of the 31st Precinct.

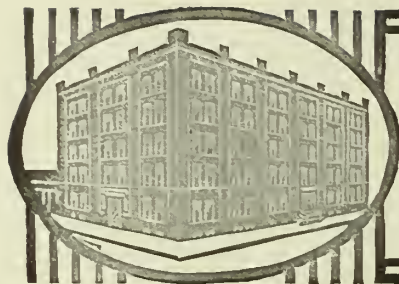
Alderman Downing (interrupting) Mr. Ball, what caused that stench? A. The body odors from the men and the fact that some of the beds are not well made.

Q. Any sewer gas? A. No, I do not think so, particularly in those cases where the rooms are closed. The bad odors coming up from the cellar, sewer gas, and foul air due to bad cellar conditions generally get into the smaller rooms, and sitting rooms and so forth, and through the halls. They shut them out to some extent from the dormitory, although they do prevail in some dormitories.

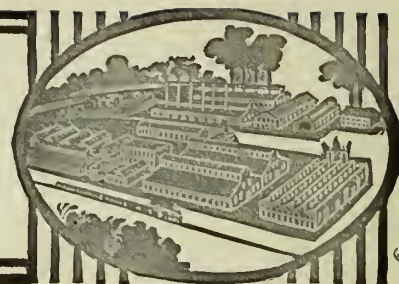
Mr. Ball in his testimony also stated that in many of the cell rooms in station houses in New York, little or no provision is made for ventilation, and that sanitary conditions in general are quite deplorable. With regard to cell plumbing, Mr. Ball said:

"There still remains many of the old types of hoppers, which are supposed to be flushed by a faucet about two and one half feet above them. Of course, these cells do have a water supply; that water supply is to a degree under the control of the prisoner, but it is absolutely ineffective in respect to cleaning the water closet. That was pointed out, that many such constructions existed, in the reports that I have mentioned of Mr. Lee, seventeen years ago, and very many of those closets have been reconstructed. Some of the older closets have been replaced with an admirable type of prison closet, having an integral seat, no wood seat, and those are well suited for prison cells, but when, because they are a good closet, they are placed for officers' use and the patrolmen's use, they are an absolutely impossible fixture. I have found one of them newly installed in one of the Staten Island prisons for general use of the men, and it is a fixture which is impossible in that situation. Such fixtures should be of a high grade barracks type, which are now very well known, because they have been adopted, and are made by competitive makers for the United States Government. And the Quartermaster's Department of the War Department, the Navy Department and the United States Treasury have issued a set of standards of high grade plumbing, many of which standards are admirably adapted to barracks use and prison use generally, for cells, and for general use throughout buildings, and those standards ought to be used in all sorts of public building."





## News of Interest Among the Wholesalers and Manufacturers



### THE OCCIDENTAL CO.'S OFFICES MOVED.

The Occidental Co., of Cleveland, O., under the management of E. W. Philpott, has moved its offices from Room 405 to Room 508, Hippodrome Bldg., in that city. The company has arranged a very elaborate and attractive display of vitreous china plumbing fixtures in its new quarters.

### REMOVAL OF VACCUUM-VAPOR HEATING CO.'S OFFICES.

The general offices of the Vacuum-Vapor Heating Co. at Philadelphia are being removed from 1078 Drexel Bldg. to Rooms 846, 847 and 848 of the same building, which will give them a much needed increase of space. Mr. R. O. Kriebel, the inventor of the system, will now devote all of his time to the management of the company.

### HUDSON BOILER MFG. CO. IN NEW QUARTERS.

On January 1st the offices of the Hudson Boiler Mfg. Co., Philadelphia, were removed from the Builders' Exchange to a suite of rooms in the Bulletin Bldg., at City Hall Square. A complete display of Hudson boilers, other heating specialties and "All-Right" closet seats will be maintained. The office of the company is under the management of W. E. Jacobus.

### BUSINESS RESUMED AFTER SERIOUS FIRE.

The Abram Cox Stove Works, whose plant at American and Dauphin streets, Philadelphia, was, last month, damaged by fire and water to the extent of \$300,000, have now practically recovered from the inconvenience and are making shipments as before. Eighty carpenters were immediately put at work on the buildings and very little trace of the fire is now to be seen.

### REMOVAL OF RICHARDSON & BOYNTON PHILADELPHIA BRANCH.

The Philadelphia Branch of the Richardson & Boynton Co., which has long been located at 1107 Arch street, Philadelphia, will shortly be removed to the quarters formerly occupied by the American Radiator Co. at 1342 Arch street. The main floor will be used as an attractive showroom of the company's goods. A total of three thousand square feet of floor space will be occupied by the company. The second floor will be used by the executive offices of the company.

### PRESSED RADIATOR COMPANY OF AMERICA REORGANIZED.

It is announced that the Pressed Radiator Company of America, with general offices at Pittsburgh, Pa., has been reorganized under the name of the Pressed Metal Radiator Company. The capital stock of the new corporation

is \$1,200,000, divided into 12,000 shares of the par value of \$100 each. The plant is located at West Pittsburgh, Pa. Five thousand shares of the stock are to be issued as fully paid and nonassessable in payment of their claims to old stockholders in whose behalf the plant was purchased at the receiver's sale. John K. Fryc is president of the company.

### NATIONAL RADIATOR CO. REWARD FAITHFUL SERVICE.

Fifty employees of the National Radiator Co., of Johnstown, Pa., were made happy at Christmas time by receiving bonuses from the company which totaled \$1,608.95. Since the season of 1905 the company has been distributing bonuses annually to faithful employees. So far the company has paid out in this manner \$10,430.11. The bonuses are computed as follows: Those working two years are given three per cent of their annual wages; those working three and four years are given four per cent; those working five years are given five per cent. The action of the company is greatly appreciated by the employees.

### HOLBROOK, MERRILL & STETSON'S ANNUAL DINNER.

Employees of Holbrook, Merrill & Stetson, one of the oldest and largest plumbing supply firms of San Francisco, held their annual "Get-Together Dinner" at the Bohemian Club headquarters in that city on Thursday night, December 26th. More than one hundred officers and employees of the firm participated in the evening's pleasure. The crowd was taken direct to the banquet rooms from the office by a special car of the United Railroads. Harry M. Holbrook, treasurer of the company, presided over the ceremonies, and kept things lively during the banquet. A part of the entertainment consisted of the singing of versions of popular songs made to fit the occasion. The banquet was followed by an informal entertainment, mostly furnished by members of the party. These annual dinners were an established custom before the fire of 1906, and while there has been an interruption of several years it is expected that the custom will hereafter be continued.

### VICTOR BRASS MFG. CO., A NEW CLEVELAND CONCERN.

Cleveland, O., now is the home of another energetic manufacturing concern whose line is that of plumbers' high grade brass goods. This is the Victor Brass Mfg. Co. just recently organized. The officers are Lou Brennan, president; Ted Moran, vice president; Nick McGrath, secretary and treasurer; and Jos. H. Lyons, general manager. All of these men are well known to the trade, having been connected with the Atlas Brass Co. for many years, Mr. Brennan having covered the west-

ern states. Mr. Moran the eastern states, and Mr. McGrath travelling the southern territory, for this company. Mr. Lyons was the practical man there and his new connection as general manager will give the company a man whose original, practical and painstaking production of first class plumbing brass goods has been fully put to the test. The plant is nicely located at Cleveland and has already filled a number of orders. The company has adopted the slogan "Victor-One Grade Only."

#### THE BORDEN CO.'S. ANNUAL MEETING AND BANQUET.

The annual meeting of the board of directors and the stockholders of the Borden Co., of Warren, O., was held in that city on Saturday, December 28th. After having disposed of all matters brought before the meeting the entire party adjourned to the Statler Hotel at Cleveland, where the annual banquet and love feast was held. At the head of the party were: W. A. Neracher, president of the Borden Co. and vice-president of the General Fire Extinguisher Co., of Providence, R. I.; Alfred F. Howe, vice-president of the Borden Co., with offices in the Flatiron Bldg., New York City; and F. C. Saviers, Pacific Coast representative. After enjoying an elaborate banquet the party wished "bon voyage" to Alfred F. Howe, who leaves on his eleventh annual trip to Europe on the most "Germanish" boat he can find in New York harbor on or about January 25th. Mr. Howe will this year visit the Borden Co.'s branches and business connections in the following countries: Germany, France, England, Italy, Russia, Belgium, Switzerland and Austria-Hungary. The party also gave Mr. Saviers a hearty welcome back from Australia, where he has just spent a year in the interest of "Beaver" tools, and following this he was also given the "bon voyage" greeting upon the eve of his trip to South America, which he is to cover thoroughly in 1913 for the Borden Co.

#### OHIO BRASS CO.'S. ANNUAL SALES MEETING.

The annual sales meeting of the Ohio Brass Co., Mansfield, O., was held recently at their factory. Their representatives, Messrs. J. O. Patrick, of New York, E. L. Murray of Chicago, L. L. Wilkinson, Atlanta, Ga., and W. A. Gordon, of Barberton, Ohio, attended the meeting at which considerable information relative to the devices manufactured by the Ohio Brass Co. as well as others they are about to put on the market, was imparted during the various sessions of the convention. Beneficial results are anticipated from the thorough preparation of their representatives during the annual get-together meeting when they start to call on the trade the early part of the year.

#### H. E. GILBERT NOW HANDLING COMBINATION BOILER AND GAS WATER HEATER.

H. E. Gilbert, who has for eight years been associated with the John Wood Mfg. Co., of Conshohocken, Pa., as sales manager, has severed his connection with this company and in the future will not be directly connected with its management.

He will devote all of his time to the sale of gas appliances including the "Electric Weld" combination boiler and gas water heater manufactured by the John Wood Mfg. Co. They will continue to manufacture these boilers and Mr. Gilbert will have the entire handling of the sales end, they being furnished him in quantity sufficient to meet the demands.

He will also handle a line of gas appliances that are

manufactured by other companies so that he will be able to supply the needs of any of his customers for a complete line of these goods, making it possible for them to confine their purchases to his line only and still keep their line complete.

This is something of a new departure and Mr. Gilbert feels that the trade will take kindly to the innovation. The details of the selling company have not been completed but it is intended to effect an organization of a complete selling force within the next few months.

#### THE "MANN" WALL OUTLET WATER CLOSET.

The "Mann" outlet fixtures illustrated herewith are said by the manufacturers to solve the problem of sewer gas in the bath room. The water closet has an adjustable metal to metal coupling that can be adjusted to one thirty-second of an inch. It is attached to the bowl by a hand calked lead joint and is connected to the piping system by means of a screw thread and calking ring.



The "Mann" Wall Outlet Water Closet.

This metal coupling carries the entire shearing load. These couplings have been tested out by the manufacturers and are claimed to be absolutely gas and water tight under one hundred pounds pressure. However, being above the floor, should a leak occur it could readily be seen. All tension and thrust strains are transmitted to the vertical pipe in the rear of the fixture by means of special clamps which encircle the pipe and are fastened to the bowl by means of adjustable bolts which entirely relieve the coupling from any twisting or wrenching strains. Further particulars regarding these fixtures can be obtained by writing the Mann Manufacturing Company, Pittsburgh, Pa., mentioning "Domestic Engineering."

#### CHRISTMAS NUMBER OF THE MUELLER RECORD.

H. Mueller Mfg. Co., Decatur, Ill., have for some three years past been publishing for the benefit of their heads of departments, branch houses and salesmen, a little monthly bulletin known as the "Mueller Record," which is circulated for the dissemination of shop information



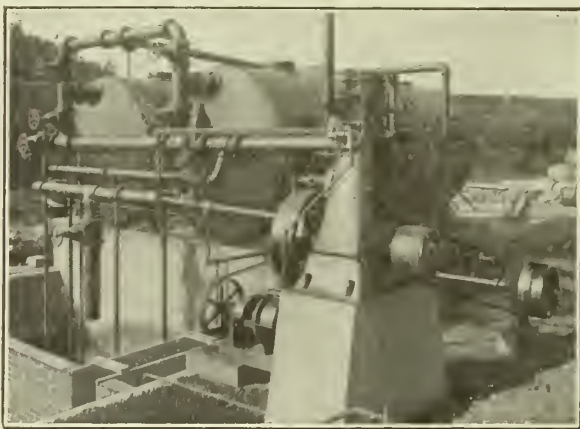
among those to whom various bits of factory information will be of value. This publication has never been circulated outside of these departments until the recent Christmas Number, which was distributed among all of the employees. The Christmas Number is of special interest, containing 24 pages and with a decorative cover in colors which displays in an admirable way the Christmas spirit prompting this particular issue. It contains a great deal of newsy information as well as some clever cartoons. The spirit of Christmas pervades the entire issue.

### A NEW SEWAGE DISPOSAL SYSTEM.

A new departure in the disposition of sewage disposal has been invented by the engineer of Wm. B. Scaife & Sons Co., of Pittsburgh, Pa., manufacturers of water filters and water purifying apparatus, for which patents have been applied.

After a long series of exhaustive experiments, a plant was installed, having a daily capacity of 1,000,000 gallons, for the Russia Cement Co. (glue manufacturers) of Gloucester, Mass., to test out the practical merits of the process. The results obtained have been most gratifying and far beyond the original expectations.

The problem of the disposal of sewage of an offensive character has been a very serious one heretofore, especially among glue factories, slaughter houses, tanneries, and the like, as the law in most cases prohibits the discharge of such sewage into lakes, rivers or running streams. Up to the present time, these factories usually have been obliged to collect the waste water in large settling tanks and then remove the sludge and scatter it over the ground to dry in the sunlight, or to compress and dry it; or, in other cases to bury it in the ground. As all waste waters contain more or less animal and vegetable matter, the latter become decomposed, very harmful, and also have an offensive odor, and the sanitary condition of the surroundings is therefore greatly impaired. These methods have proved to be very slow and expensive propositions, as the sludge is in such condi-



A New Sewage Disposal System.

tion that it could not be readily handled and is a total waste to the factory.

The apparatus illustrated herewith is especially adapted for separating and removing the soluble matter from sewage and other waste waters carrying liquid discharges; also for providing for forcing out the liquid part of the waste by compressed air, leaving the insoluble matter in a comparatively dry and solid state which renders it readily removable from the apparatus employed. A further object is to provide for separating and saving the sedimentary portion of the waste from sewage, where desirable, and to render harmless the

sewage from such plants as are under legal obligations to clarify their sewage before discharging it into streams.

In this process the sewage is pumped from a basin by a centrifugal pump through pressure filters until there is an accumulation of considerable thickness of detritus on top of the filter beds; then the water is drawn off back into the supply basin and compressed air introduced under pressure to force out the remaining water and to dry out the detritus which thereupon becomes a flexible cake on top of the filter bed. This cake may then be rolled up and removed, as the filters are provided on the outer side, on a line with the top of the filter-bed, with a row of hinged manholes which can be opened quickly and the suspended matter taken out.

This is then put in a press where the balance of the water or moisture is squeezed out; then it is dried (and ground, if necessary) and sold for fertilizer, chicken or hog-feed, according to the properties which it contains. The value of the product thus produced, which was formerly wasted, makes a good investment on the cost of the installation instead of a large expense with no income whatever as formerly. The operation of the plant is also very simple and inexpensive and the first cost is also comparatively small.

The apparatus employs two or more tanks, so that while one is receiving the waste and is filling, the other may be cut off from the supply and used for the process of separation. For this purpose the piping and valves are arranged so that there is no interruption in the receipt of waste from the supply, and the operation of the apparatus is continuous. The handling of detritus in the form of wet sludge is also avoided, and the material is in such form that it is easily handled, removed and used. The decomposed part of the sewage is also removed, thereby avoiding the offensive smell customary in such places, and the balance of the waste water can be treated chemically if necessary.

Wm. B. Scaife & Sons Co. expects this type of plant to add greatly to its already large business in similar lines, and, no doubt, manufacturers will be glad to learn of an inexpensive, effective and practical apparatus that will also, in many cases, produce an income more than sufficient to cover the cost of its operation.



Fred P. Hale, for several years sales manager of the American Sanitary Mfg. Co., of Abingdon, Ill., has severed his connection with that company and accepted a position as representative for the Glauber Brass Mfg. Co., of Cleveland, O. Mr. Hale will cover the state of Minnesota, and he will make his headquarters at Minneapolis.

W. E. Lane, who for the past seven years has represented the Republic Mfg. Co., of Chicago, in Illinois, Iowa and Wisconsin, is now to be found at the Federal-Huber Co., Chicago, where he is engaged in welcoming old friends and making new ones.

F. R. Hartenbower, of Caldwell, Idaho, president of the Idaho Master Plumbers' Association, was a Chicago visitor this week, and dropped in at the office of "Domestic Engineering." He was on his way home from a holiday visit with his parents, who live at Tonica, Ill., and from where he left eight years ago to cast his fortunes with the growing state of Idaho. He and his brother are the proprietors of the Caldwell Plumbing & Heating Co., of Caldwell, and have been singularly successful since establishing themselves there.



### RAILROAD BUYING IN VOLUME.

Not in many years have the railroads of the country ordered new equipment with such a liberal hand as in the last week. The Harriman lines are now in the market for 12,000 cars; the New York Central will buy, in addition to its already large purchases, 7,000 more freight cars. In all, the increase in the market was 60,000 cars, and it is estimated that the total purchases in 1912 will amount to more than 240,000. This extraordinary expenditure of funds by the railroads, managed by the leading business men of the country, bespeaks only confidence in the future of business prosperity. No one industry is sufficient unto itself, and the orders by the railroads in turn make more business for building constructors all over the United States.

The sales of pig iron during the last week have been comparatively small, but there have been numerous orders on the market for large tonnages. The Birmingham market which was weak early in December, has now strengthened considerably, and prices are now 50c to \$1 a ton higher. The manufacturers of finished iron steel have revised quotations on structural shapes and plates, while a new list has been put into effect on raw iron pipe. The quotations are as follows:

No. 1 Northern Foundry, New York.....	\$18.50 to \$18.75
No. 2X Northern Foundry, New York.....	18.25 to 18.50
No. 2 Southern Foundry, Birmingham.....	14.00 to 14.50
No. 2 Southern Foundry, Cincinnati.....	17.25 to 17.50
No. 2 Northern Foundry, Chicago.....	18.00 to 18.25

### A BETTER DEMAND FOR COPPER.

Various quantities of copper have been sold during the last week on a basis of 17.50 cents in New York. These were for January and February delivery, and sales for March shipment were made at 17.30 cents. The London market is stronger, and although the exports in December were not up to the high record, they were an improvement on October, and it is expected that 30,000 tons will be shipped.

### STRENGTH IN TIN.

The prices again advanced to above 50 cents, and tin in large lots in New York, is now quoted at 50 cents and 51 cents per lb. An important announcement made late in the year was that the Bankers sales in Holland in 1913 will amount to about 15,000 tons, a reduction of 200 tons, compared with 1912.

### LEAD.

The market is weak, and sales have been common in New York for large lots, 14.27½ cents, and in St. Louis for 12½ cents.

### OLD METALS.

The past week has been distinctively a house-cleaning one. Stock taking was like a Monday wash-day. It was everywhere noticeable, says "The American Metal Market." But in the process of stock taking there arises usually, and this

year no exception, the yearly or semi-yearly sales of odds and ends of metals that on the whole prove to be quite considerable and causes activity in the metal line, by sales and resales of same. As to the general business, that naturally enough was not voluminous, the larger operators being now buyers for the time being. Europe has figured but very little in the old metals lately, so this market is left on its own resources. Withal this reigning dullness, prices have held quite firm, though indeed a fractional shading of an eighth to a half was noticeable, in copper and brass scraps. No change of any note occurred in white metals, tin and solder scraps ruling very high, lead and type scraps very low. Remarkable firmness prevails in zinc scraps, caused principally by the usual winter scarcity of the old scrap. Aluminum scraps are inactive, yet prices show firmness in spite of lower prices for the new.

New York dealers' buying prices are:

Light copper .....	\$13.25 to \$13.50
Strictly crucible copper.....	15.25 to 15.50
Uncrucible heavy copper .....	14.25 to 14.75
Uncrucible copper wire .....	14.50 to 14.75
No. 1 machine composition.....	12.50 to 12.75
No. 1 composition turnings.....	11.25 to 11.50
New brass clippings.....	10.25 to 10.50
No. 1 brass turnings.....	8.25 to 8.50
Cocks and faucets.....	10.25 to 10.75
Light brass .....	7.25 to 7.87½
Heavy yellow brass.....	9.00 to 9.12½
Heavy lead .....	3.75 to 3.90
Tea lead .....	3.50 to 3.60
Scrap zinc .....	5.50 to 5.75
No. 1 pewter .....	33.00 to 34.00
No. 2 pewter .....	9.50 to 10.50
Close cut solder joints .....	9.00 to 9.25
Block tin pipe.....	43.00 to 45.00
Pure tin foil .....	33.00 to 35.00
New aluminum clippings.....	19.50 to 20.50
Old sheet aluminum.....	17.50 to 18.25



Toledo, O.—The Bryce Heating & Ventilating Co., of this city, has secured the contract for the installation of heating and ventilating systems in the new Morrellville school building at Johnston, Pa. The consideration amounts to \$8,192.

Philadelphia, Pa.—The Philadelphia Steam Heating Co. has been awarded the contract for the installation of a vacuum vapor heating system in the Princeton Charter Club's new building at Princeton, N. J. Consideration \$4,200.

Duluth, Minn.—J. Pollock, of this city, has been awarded the contract for the installation of a heating system in the new Catholic church at Gilbert, Minn. The contract amounts to \$1,200.

Columbus, O.—The Huffman-Conklin Co. has secured the contract for the plumbing and heating of the new Mercy hospital now being erected in this city.

Atlanta, Ga.—The Atlanta Steam Heating Co. has been awarded the contract for the installation of a heating system in the new county courthouse. The contract amounts to \$46,300.



# Obituary

## T. A. Hill.

T. A. Hill, past president of the National Association of Master Plumbers and president of the Manhattan local association for 1904-5-6, died at St. Luke's hospital, New York City, December 27, after an operation for gall stones, aged forty-three years.

Mr. Hill has been one of the most prominent members of the National Association of Master Plumbers for a number of years, being elected vice-president at the Atlantic City convention in 1906, and president at the Louisville convention in 1907, refusing re-election in 1908. He was also a member of the Board of Directors for 1908-9-10 and 11.

Mr. Hill was elected president of the National Association at a time when a strong, diplomatic man was needed



The Late T. A. Hill, of New York City.

at the helm and through his wise administration of the association's affairs proved that the association had made no mistake in selecting him as its chief executive.

Mr. Hill was greatly instrumental, during his office as president of the Manhattan Local, in increasing its membership and encouraging the social side of association affairs. He was a straightforward, lovable man, with such an amount of magnetism that he made friends immediately with those he came in contact with, and was possessed with the additional faculty of holding them.

He was born in New York City in 1869, and attended the public schools until he entered his father's business, William Hill & Son.

He was a member of the New York Elks, New York

Athletic and Irish Athletic Clubs, and Crescent Lodge No. 402 Masons.

Mr. Hill served in the Seventy-first regiment as corporal during the Spanish-American war, and upon his return home became a lieutenant in Company B, Spanish-American War Veterans.

He leaves a wife and four children, and a brother, Wm. R. Hill, a prominent New York lawyer.

The funeral services were held at the North Presbyterian church, New York City, Sunday afternoon, December 29th, with Masonic ceremonies.

## Richard Rock.

Richard Rock, son of Daniel Rock, who is conceded to be the oldest master plumber in the city, died December 22nd at the home of his parents. Mr. Rock had been in failing health for some time, and his demise had been predicted by his physicians.

## CLEVELAND MASTER PLUMBERS' ANNUAL MEETING.

The Master Plumbers' Association of Cleveland, O., held its annual meeting last week and elected the following officers for the ensuing year: G. J. Wehrle, president; K. J. Knuth, vice-president; Eb Ellen, secretary; Henry Gerspacher, treasurer; and Frank Grimm, sergeant-at-arms. The association selected the following men to serve on the board of directors: W. E. Boyer, F. E. Manney, Wm. Koefstle, John B. Meyer, J. W. Southwell, T. P. McDermot, E. E. Hill, A. L. Bacher, W. H. Cleveland, A. W. Stark and H. W. Eckhardt.

# Convention Dates

January 14, 15 and 16, 1913.—Annual convention of the Iowa Master Plumbers' Association, at Sioux City, Ia. The officers of the association are: President, Robert Knauer, Des Moines; vice-president, Frank Vallers, Keokuk; treasurer, J. N. Gearen, Sioux City; secretary, Wm. B. McCarten, Dubuque.

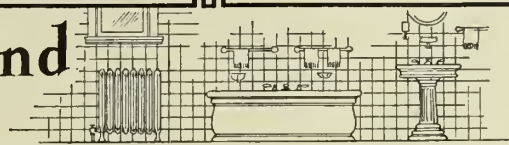
January 15, 1913.—Annual convention of the Montana Master Plumbers' Association, at Helena. The officers of the association are: President, J. W. Kennedy, Missoula; secretary and treasurer, J. P. Grady, Missoula.

January 15 and 16, 1913.—Annual convention of the Wisconsin Master Plumbers' Association, at Milwaukee, Wis. The officers of the Association are: President, Geo. F. Reeke, Green Bay; vice-president, Louis Sonntag, Sheboygan; treasurer, F. E. Green, Janesville.

January 28, 29 and 30, 1913.—Annual convention of the Illinois Master Plumbers' Association, at Springfield, Ill. The officers of the association are: President, W. J. Hiliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, Bernard Gause, Jacksonville; treasurer, O. W. Dawson, Decatur; secretary, W. C. Haviland, Aurora.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinauer, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

# Among the Plumbing and Heating Contractors



## Illinois

### Chicago News of Interest.

The Board of County Commissioners, at a recent meeting, confirmed the appointment of Richard E. Schmidt as county architect, to succeed Paul Gerhardt. Mr. Schmidt is a member of the firm of Schmidt, Garden & Martin. He has planned several large hospitals in Chicago, including Michael Reese, Alexian Brothers', and St. Anne's.

Work on the largest apartment building in the Middle West has just been started in Evanston. It will occupy an entire block, facing Ridge avenue, between Main and Washington streets. There will be ninety-six apartments, none of which will contain more than six rooms. The cost will be \$300,000.

Thomas J. Claffy, assistant chief sanitary inspector, health department, is away on a brief furlough. He will be back at his desk soon after New Year's day.

### Elsewhere in Illinois.

M. H. Colby has purchased the business of Fred H. Cottingham, Charleston, Ill. The latter has returned to the farm.

P. F. Jirtle, Chicago Heights, has been elected secretary of the Southern Cook County Association.

O. W. Dawson has been elected president of the Decatur Association.

L. F. O'Flaherty has been elected secretary of the Elgin Association.

The North Shore Association has changed its name to Evanston-Wilmette-Kenilworth-Winnetka and Glencoe Association; Robert G. Saxer, Wilmette, president, and George S. Moore, Evanston, secretary.

A new local association has been formed on the North Shore called the Eastern Lake County Association, comprising the territory from Highland Park to Waukegan. Its officers are A. M. Lanyon, Waukegan, president, and J. L. Frye, Lake Forest, secretary.

A local association has been formed called the Maywood and Melrose Park Association; L. S. Widney, president, and John Ruden, secretary.

At Park Ridge a new association has been organized with Chas. F. Taube president, and Fred A. Tesch secretary.

B. A. Harms of Pectone has purchased the plumbing business of John Conrad Sons.

T. E. Norton of Mendota has been elected president of the Princeton-Mendota Association.

John F. Willey has been elected president of the Springfield Association.

Ernest Ries has purchased Whitson Bros.'s plumbing stock at Woodstock and has opened in a new location.

Wm. Schober has opened a shop at Morris and has the new courthouse job.

There are two new firms at Springfield: The Hanratty Co., and P. J. McKee.

R. P. Kennedy is the new president of the Alton

Association.

A. J. Stone has moved his shop from Chatsworth to Lexington.

Chas. Berglund has been elected president and F. F. Styvaert secretary of the Moline Association.

G. W. Roberts and J. H. King Plumbing Co. have opened shops at Murphysboro.

## Ohio

### Cleveland.

Cleveland.—The C. H. Warner Company, of this city, has been incorporated with a capital stock of \$5,000 to deal in heating appliances and do a general steam and gasfitting business. The incorporators are C. H. Warner, D. B. Sommers, M. A. Warner, S. C. Kollie and Julius F. Preyer. The Modern Ventilating Co., of Cleveland, has been incorporated with a capital stock of \$10,000 to deal in heating and ventilating devices of all kinds. The incorporators are H. M. Schlett, J. M. Bostick, Carl L. Hohage, B. B. Given and O. T. Loehr.

The Cleveland Sanitary Plumbing & Heating Company, 1022 East 105th street, has the plumbing and heating contract at the corner of Euclid avenue and East 81st street, amounting to \$1,200; the plumbing on a four-suite terrace on East 123d street, for \$800; the plumbing in the Hydraulic Pressed Brick Company for \$2,500; plumbing and heating in a residence on Tacher street for \$600; plumbing and heating for W. W. Laeher, \$800.

The heating contract on the Kinney & Levan building on Euclid avenue has been let to The Chafer Company, 431 Champlain avenue. The contract will amount to about \$20,000, and is one of the largest that has been awarded this year.

Warden & Leese, 1905 Prospect avenue, have secured the contract for the heating in the American Multigraph Company's factory, amounting to \$4,000.

Barnes & Rainger, 10614 Superior avenue, have the plumbing in a six-suite terrace on East 118th street for \$1,200.

### Cincinnati.

Cincinnati.—The Odorless Gas Heater Co., of this city, has been incorporated with a capital stock of \$10,000 to manufacture gas heaters under patent issued to F. C. Ludlow. The incorporators are Rud K. Hynicka, Henry A. Verhaga, Lawrence Poland, W. H. Sweeney, and John E. McGuire.

Custodian P. Lincoln Mitchell, of the Federal Building, announces the expenditure of \$50,000 for a general overhauling of the plumbing, electric wiring and sand blast scrubbing of the exterior. The building was erected thirty years ago and is much in need of these improvements.

Schwarz & Fern have purchased the plumbing business, as well as the four-story flat building, belonging to J. H. Brinck, located at 2117 West Eighth street.

A twelve-story building is to be erected on the site of the St. Nicholas Hotel property at Fourth and Race



streets. The building is intended for business purposes and is to be absolutely fireproof; even the furniture is to be of metal. A Cincinnati architect has already drawn plans for the building.

Frank Siefert & Co. have dissolved partnership. Mr. Fay, who is the company, will start in business for himself and Mr. Siefert will remain at the same location, No. 4206 Hamilton avenue, Northside.

The name, Charles Homan, will again appear on the roster of the Cincinnati master plumbers. A son of Charles Homan, sr., lately deceased, will open a plumbing establishment at the location formerly occupied by his father on Vine street, near Corry.

Contract for plumbing residence for Mr. Ashbrooke, to be erected at Ft. Mitchell, Ky., as per plans by Architects Robertson & Fahnstock, has been awarded to Edward Kelley, of Covington, Ky.

An opinion of material assistance to the local plumbers' examining board has been given by the City Solicitor, in that plumbers who hold licenses as master plumbers in villages lately annexed to Cincinnati cannot use their village license to do plumbing work in the city proper, but only in the former village territory, and as soon as the village license terminates, they must pass the city examination to be recognized as master plumbers. Heretofore, all plumbers who were seeking licenses as master plumbers and being refused on account of failure to pass the examination, immediately established themselves in villages about to be annexed to Cincinnati, thereby hoping to overcome the necessity of an examination.

The Lippencott Co., dealers in food products, is planning the erection of a five story building suitable for its needs. The new plant is to be erected on the site of the present location on the east side of Main street, south of Second, at a cost of \$125,000.

The Richard Murphy Plumbing Co., 328 E. 4th Avenue, were the low bidders for their class of work on the Lincoln theatre, being erected on Fifth and John Streets, and it is expected they will be awarded the contract by architects Stewart & Stewart. The Lincoln is one of the large theatres, the plumbing requiring about 15 fixtures.

Another big hotel improvement is being planned as a direct result of the Gibson House fire. The Monro Hotel Co. is formulating plans for an additional structure, seven stories high and containing 175 rooms; each room to have bath attached. The improvement is to cost \$300,000 and to be built in the rear of their present property, facing on College Street.

Henry Niemes, 4112 Hamilton Avenue, was awarded plumbing on the new Terrace Park school building, as designed by architect James Chapman. Mr. Niemes is also doing plumbing in a new plant being erected for the Korb Lithographing Co., on Reading Road.

The firm of Willis & Linfert, of Corryville, will change the firm name to Willis & Co., George Linfert, the present partner, being the company.

Lamping Bros., of Avondale, were the successful bidders for plumbing in residence and garage being built for the Chas. Behlen & Sons Co.

George Young, sr., 14 Findlay Street, is installing the plumbing in an apartment building at McMillan & May Streets, owned by Miss McDonough. This contract requires 26 fixtures.

Lima.—The Morgan-Wood Co., of this city, has been incorporated with a capital stock of \$15,000 to operate a general plumbing business. The incorporators are M. L. Parmenter, Wallace Landis, Charles S. Wilson, B. H. Gramm and Neela L. Wood.

## Kentucky

### Louisville.

The past week, ushering in the infant 1913, has not produced an extraordinary amount of business for Bluegrass domestic engineers. On the whole, however, the holidays have passed rapidly and merrily, and the plumbers and steamfitters have counted themselves lucky in having enough business to keep them fairly well occupied during the time when actual holidays did not demand that they shut up shop. The arrival of slack trade at this time of the year is entirely natural, and the new year looks so good that the members of the allied crafts have absolutely no inclination to kick strenuously.

Robert C. Moxham, well known in the heating trade of this territory, died recently from the effects of burns which he sustained at his home not far from Louisville. Mr. Moxham went at midnight to investigate trouble in the acetylene lighting system on the Coleman farm, and an explosion of gas which had accumulated between the safety doors of the apparatus occurred, injuring him so that he never recovered. He was formerly the Louisville representative of the International Radiator Company, of Delaware, with offices in the American National Bank Building in this city. He is survived by his father, Robert C. Moxham, sr., a resident of Virginia, and two aunts who live in Bullitt county, Kentucky.

A number of high-grade heating contracts have been taken during the past couple of weeks in Louisville by James McWilliams & Company, and business with that concern is now better than it has been in years at this time. A 12-horsepower boiler, together with new engine-room fittings and considerable supplementary equipment, have been installed in the Jefferson County jail at Sixth and Green streets by the company. Another McWilliams job is the heating plant in the new wholesale millinery store of David Baird & Son on Main street near Fifth avenue, a 5-story building, the plant consisting of two 80-horsepower, low pressure tubular boilers, connected with down-draft furnaces and a modulating vapor system. The equipment is complete in every detail for a big mercantile house of the sort in which it is to be employed. A third important McWilliams contract is the complete new central heating plant installed in St. Anthony's Roman Catholic church, parochial school and parish house, at Twenty-second and Market streets. A central plant in this institution was obtained through the hitching up of six low-pressure tubular boilers which had formerly been used individually. The new plant is connected with a vacuum system extending for 17,000 feet through the three large buildings.

A complete industrial heating plant is now being installed by A. J. Anderson & Company, in the large paint and color factory of Lampton, Crane & Ramey in the West End.

Two new residence heating jobs were recently contracted for by William Beeler & Company. A steam outfit is being installed in the residence of A. A. Will at Twenty-second street and Portland avenue, while hot-air apparatus is being supplied in the residence of Tobe Greiner, at Highland avenue and the Bardstown Road, by the Beeler company.

A New Year's dinner in honor of Theodore E. Miller, assistant manager of the plant of the Standard Sanitary Manufacturing Company in this city, was recently tendered at the Tyler Hotel by ninety-one office and shop

men of the Standard plant. The large number of Standard employes gathered to celebrate the closing of a very successful business year, to wish Mr. Miller a similarly successful one in 1913, and to be wished the same and many of them in return. Theodore Ahrens, president of the Ahrens & Ott Manufacturing Company, A. E. Miller, father of Theodore E. Miller, and other prominent business men, were guests of the big delegation, along with the assistant chief, and a delightful evening with plenty of good speeches setting off the elaborate menu, was enjoyed.

Henry Franz, of the E. B. Sumpter Plumbing Company, Bowling Green, Ky., was recently seriously injured while assisting in lowering a boiler into the basement of the home of E. P. Harris in that city. The heavy apparatus broke through the cellar steps and pinned Mr. Franz to the floor, crushing him painfully, but failing to break any bones.

The Richmond Heating & Plumbing Company, of Richmond, Ky., recently secured a contract from the Board of Regents of the Eastern Kentucky Normal School in that city for furnishing modern steam heating in the new female dormitory of the institution. The bid of the company for this work was \$1,980, while the plumbing and electric wiring in the same job were secured by the same interests at \$3,000.

By way of a New Year's proclamation, the Falls City Plumbing Supply Company, of this city, stated that it has absolutely no complaint to make even regarding the business of holiday week and that its members have little time for anything but order-taking and deliveries.

Willman Brothers recently contracted to install kitchen plumbing in the residence of Thomas L. Cloud, at Twenty-first and Bank streets. The Willman shop is being enlarged, pending the opening of 1913.

An unusual job of motor installation is being handled by the Neville-Kellner Company, heating contractors and electric engineers. The company recently contracted with the Board of Education to install a 20-horsepower motor in the George Morris School at Floyd and Chestnut Streets. The motor is to operate a big ventilating fan in the school, this apparatus having heretofore been driven by steam from the heating plant. The Board of Education proposes to utilize all the steam generated in the boiler room of the institution to heat the building, and the use of the motor for ventilating purposes has followed.

## Pennsylvania

### Pittsburgh.

With the opening of the new year, Pittsburgh master plumbers are looking forward to a highly busy season. There is a considerable amount of small work on the books, but the season for large jobs is not yet at hand. While some large apartment houses are going up, these jobs are being considered old year work.

The Pittsburgh Association officials are now looking forward to the annual meeting of the Pennsylvania Association which will be held in this city during the early spring season. Preliminary plans for entertainment are being discussed here and there, and ere long committees will be appointed to take up the real task of entertaining the convention, which has not convened in this city for a number of years.

Plumbers in the East End district of Pittsburgh have posted notices in their shops that hereafter they will not loan tools. The "habit" of borrowing tools from plumb-

ers became so strong that the trade was compelled to take such an action. The losses sustained by the plumbers have amounted to considerable through the "loan" channel, but now the "leak" has been "plugged."

H. Tuch, who bought the stock of the Duquesne Sanitary Co., at a court sale has completed the removal of it from the concern's former place of business on Second avenue. Quite a number of wash stands, bath tubs, lavatories and the like were sold at private sale by the buyers of the stock before the removal of it, the plumbers being alert to pick up some rare bargains. Some of the stock is said to have been bought by master plumbers on speculation, they holding it until the time comes for them to use it in some jobs they have on their books.

The Maintenance of Way Department of the Pennsylvania railroad here announces that surveyors have started the task of laying out the ground for a new siding to be built from the Ft. Wayne road to the plant of the National Sanitary Manufacturing Co.'s plant at Salem, O. The increased siding capacity has been required because of the increased business of the Sanitary company.

The Steam Equipment Co., of this city, has been awarded the contract for the equipment for the entire plant of the Pittsburgh Crucible Steel Co., at Midland, Pa., on the Ohio river, for their hydraulic operating valves. The contract is said to be the largest of its character awarded a Pittsburgh firm in recent years.

At the last meeting of the Pittsburgh Board of Education, the building committee awarded the steam heating contract for the new Peabody school building to McGinnis Co., of this city. Construction of the new school is to start at an early date.

Among the heating and plumbing contracts awarded in the Pittsburgh district during the last fortnight are the following:

Schillhammer & Son, of Warren, Pa., will do the heating and plumbing work in the \$6,000 residence being erected at Warren by Frank Brown.

Lee A. Huckstein, who is erecting a \$10,000 theatre building on the Northside, awarded the plumbing to John B. Heid, and the heating to the Burns-Fleming Company, of this city.

E. E. Guigon & Son, of Corry, Pa., will do the plumbing and heating work in the \$15,000 business block being built in Corry by Keleher Bros., of that place.

The plumbing work in the new addition being erected to the Punxsutawney, Pa., hospital, which is costing \$8,000, has been let to the Punxsutawney Hardware Co. The heating contract has also been awarded the same concern.

Plumbing and heating work in the \$8,000 residence being built at Punxsutawney, Pa., for P. L. Brown has been secured by George Brown & Co., of that place.

The largest contract awarded lately in the Pittsburgh district was that secured by George H. Soffel, of this city, who will do the plumbing work in the \$175,000 Victoria theatre, which is now being erected on Liberty avenue near the Pennsylvania railroad station. The plumbers will not be able to get to work on this job for probably a month.

Plumbing work in the new car barn addition being built by the Valley Street Railway Co., at Tarentum, Pa., was awarded to Moss & Blakely, of Pittsburgh.

### News from Philadelphia and Vicinity.

Wm. J. McCullif, 5940 Haverford avenue, has been awarded the heating and plumbing contract for 14 new three-story houses, which are being built on Lincoln Drive for Mr. E. A. Carroll.



Fred Wenkenbach, 2608 Girard avenue, has been awarded the plumbing in the new theatre which is now under construction at the corner of 26th and Girard avenues, which will be called The Fairmount. This is being built by Mr. Fred Zimmerman and is the largest of its kind in this city.

Boon & Sample, 16th and Filbert streets, have been awarded the heating contract in the building at 321 S. Fourth street, for Mr. Chas. Keith.

David R. Burns & Son, 752 N. 19th street, have been awarded the contract to make extensive alterations in the heating and plumbing system in the Continental market house at 23rd and South streets, and also have the heating and plumbing contract in the building at 1419 Bainbridge street for J. Blume. Cost \$700.

Fred H. Powell, 1811 Columbia avenue, has been awarded the contract for the plumbing and heating in the residence of Mr. R. Byrnes at 409 Snyder avenue.

T. L. Makin, 2220 Bridge street, is doing the heating in the residence of Monsgr. Vitto Vecchio, 806 Christian street. Cost \$500.

Walter Walker, 2031 E. Chelton avenue, has opened a heating and plumbing establishment and has quite a number of contracts on hand, among them being the heating at 323 N. 21st street, and the plumbing and heating at the apartment house at 2101-3 Chelton avenue for Mr. R. Killough.

Al. H. Powell, 916 Arch street, is making quite a few alterations in the heating and plumbing system for the Hamilton Storage Co., 40th and Lancaster avenues.

Worrell Bros., 7th and Concord avenue, Chester, Pa., have been awarded the plumbing, heating and gasfitting in the new apartment house which is being erected at 14th and Providence avenue.

Geo. E. Macklem, 2313 W. Third street, Chester, Pa., has quite a unique window display, and which is attracting a good deal of attention. He has formed a tree out of galvanized pipe and has decorated it with various plumbing specialties to represent a Christmas tree.

The Miami Hotel Co. has been incorporated by Fred H. Rike and others with \$750,000 capital, and will build a new modern hotel at Second and Ludlow streets to cost approximately \$1,000,000. The Allyn Engineering Co., Cincinnati, O., prepared the plans, which call for an eight-story building, 100 by 200 feet, with 300 rooms.

H. C. Asquith, 4102 N. 5th Street, met with a serious street car accident which has necessitated the amputation of several fingers. We are glad to note that Mr. Asquith is able to be around again and to see his friends. He has been awarded the plumbing and heating on the five new houses which are being built in the North East for John Schmunk.

Jos. C. Brown, 5503 Mascher Street, Olney, Pa., has been awarded the plumbing and heating in the four new houses which are being erected for J. B. Townsend, of that place.

Chas. W. Miller has just opened an attractive plumbing shop at the corner of Olney and Tabor Road, Olney, Pa., and reports business good for the coming winter, having quite a few new contracts on hand. Mr. Miller will be pleased to receive catalogues and literature from the various manufacturers and jobbing houses.

Jos. A. Kearney, 21st and South Streets, is doing the heating and plumbing in the residence of J. J. Naulty, on 23rd Street.

Kribel & Co., 8th and Spring Garden Streets, are installing the heating apparatus in the large apartment house at 79-81 W. Sharpnack Street, Germantown, Pa., for Mrs. A. Richardson. Cost, \$1,150.

F. Darker Haines & Co., 4120 Lancaster Avenue, have en-

larged their quarters at this address and report business very excellent.

Stillwell & Sochle, 29th & Susquehanna Avenue, who conduct a large plumbing and heating business, have dissolved partnership to take effect Jan. 1, 1913. Mr. Stillwell will continue the business at the same address.

Wm. F. Rentschler & Bro., 2631 Girard Avenue, have been awarded the contract to do the plumbing and heating in the large new bank building which is now under construction at the corner of 29th and Dauphin Streets, for the North Penn Bank.

Flynn & Love, 1526 Sansom Street, have been awarded the plumbing and heating on the new building at 111 S. 13th Street, which was formerly occupied by the Garrick Hotel and which is now being transformed into a large department store.

H. L. Beck, Phila., Pa., is installing the heating and plumbing in the residence of John Egan, 3603 Mt. Vernon Street. Cost, \$500.

C. D. Fricka, 1328 N. 17th Street, is making quite an extensive alteration in plumbing in the apartment house at 1707 Master Street.

Howard G. Miller will represent, in the New England states, the Rickersberg Brass Co., of Cleveland, Ohio. Mr. Miller is now with Pierce, Butler & Pierce Mfg. Co., and formerly traveled for McCrum-Howell Co. in Long Island.

## Massachusetts

Westboro.—The town of Westboro is to have a plumbing inspector, an official heretofore unknown. Plumbing rules have been prepared and approved by the state board and the matter of selecting an inspector is now engaging the attention of the Board of Health. There are said to be a number of candidates for the position.

Leominster.—An inspector of plumbing as provided for under the new rules recently adopted by the Board of Health, is yet to be selected. The board has several candidates under consideration. The rules have now been posted the required length of time and have gone into effect.

Amesbury.—M. E. Deal has opened a new plumbing establishment at 20 Market street.

The Jennison Plumbing Co., of Fitchburg, Mass., has the contract for installing steam fitting and plumbing at the state prison at Concord, N. H. The work has already been started.

New Bedford.—New Bedford's proposed plumbing ordinance, which has been under consideration by the city government most of the past year, has been referred to the incoming city government for further consideration.

## Connecticut

Hartford.—The Whitlock Coil Pipe Co. has sold its plumbing supply department to Mitchell S. Little of 329 Laurel Street. The department employs about twenty hands and makes a specialty of manufacturing bands for various kinds of plumbing connections. Mr. Little has not decided whether he will continue the business at the Pipe company's factory or remove elsewhere. Another portion of the plant may be sold to The New Departure Company.

Waterbury.—The W. H. Lowe Co. has filed a certificate of incorporation with the secretary of state at Hartford and is

to engage in a general plumbing and heating business. The incorporators are William H. Lowe, Helen E. Lowe, Edmund R. Heebner and George L. Goodroe.

Another local concern which has just incorporated is the Guarantee Plumbing Company. Davis Albert, president; Mitchell Albert, treasurer, and Abraham Devin, secretary, have filed the company's certificate. They comprise the board of directors of the new company.

Associates and employes of Herbert A. Woodward, of the Spencer Hardware Company, of Keene, N. H., dealers in hardware, plumbing and mill supplies, have presented Mr. Woodward with a gold watch in celebration of the completion of forty years connection with the concern. Mr. Woodward's partner, William O. Hutchins, made the presentation.

## Texas

### Unique Method of Concealing Cleanout.

The illustration herewith may interest many plumbers, showing as it does, one way of concealing a 4-inch lead drumtrap under the kitchen sink. The cleanout, you will notice, is wiped in on the side. The idea was originated by Fred Robbins, secretary of the Ft. Worth, Texas,



Unique Method of Concealing Cleanout.

Master Plumbers' Association. The entire trap was made and wiped by A. D. Chandler. The trap is to be installed in a residence being erected for Z. C. Ross, for which Mr. Robbins has the contract, the job approximating \$1,400.

## Minnesota

### Minneapolis.

The month of December was an exceptionally busy one for the plumbing and heating trade in Minneapolis. Many contracts, although not ready, were let as there was a general feeling of a raise in the prices of materials with the new year.

The building permits exceeded the month of December a year ago by a margin over \$100,000, which indeed looks promising.

The jobbers are now in the midst of their inventories and the salesmen have been called in by the majority of the houses to attend house meetings, bringing forth recommendations for the betterment of the year 1913.

The master plumbers will, beginning January 1st, put

into force their new rule of closing their places of business on Saturday at noon. Heretofore they did this only during the months of May, June, July and August.

The Hughes Heating & Plumbing Co., 1514 E. Franklin avenue, have secured the contract for the plumbing in the new toilet rooms of Janney, Semple, Hill Co., which consists of twenty-eight lavatories, five closets, and two two-stall porcelain urinals.

Worthingham & Co., 322 Third avenue south, were awarded the contract for the plumbing in the new art museum at Stevens avenue and 24th street for the consideration of \$45,431, which is to be completed by June, 1915.

F. Bartell, 30 Fourth street southeast, has secured the plumbing in the residences of Carl Younquist, and J. M. Bloom, of this city.

### St. Paul.

There has not been very much stirring in the plumbing and heating line in the city for the last week, due probably, to the holiday excitement. Few, if any, contracts have been let and there are quite a number of journeymen plumbers and steamfitters out of work.

The winter promises to be a busy one if what plans that are being drawn all materialize. Most of the local architects are busy with dwelling house plans, but the larger buildings have been laid aside for the spring work. The new Public Library seems assured as one of the buildings to be started in the spring. The Library board seem to be favoring eastern architects, but it is intimated that the City Council will refuse to vote on the bonds should the Library board go out of the city to select architects.

Brown & Bigelow are having plans drawn for a \$300,000 factory building to be built on the old Kitsondale site on University avenue. The building will be 400 by 250 feet, three stories high and will accommodate about 1,000 workers.

The Union Brass and Metal Works at Lawson and McKubin streets will also enlarge its factory with a new foundry and pattern shop. E. L. Masquery is drawing the plans.

Alden and Harris, architects in the New Commerce Building, are preparing plans for a \$15,000 residence to be built on Summit avenue. Figures will be taken in the near future.

Allan and Hausler are preparing plans for a gymnasium swimming pool, turkish and mud baths, to be put in the new Knights of Columbus building on Smith avenue. S. A. Hill, 254 West Seventh street, is installing the plumbing and gasfitting in the building.

E. J. Snyder, 1661 Grand avenue, was awarded the plumbing contract in the Mark Fitzpatrick apartment house on West Ninth street. Mr. Snyder is also installing the plumbing and gasfitting in a new residence on Laurel avenue for Mr. A. L. Hauser. Swanson Bros., 506 Capital Bank Building, were low bidders on the heating in the Fitzpatrick flats.

Baird and Sudheimer, Rice and Iglehart streets, are doing the plumbing and gasfitting in a four-flat building on Western avenue for the Sperry Realty Company.

E. S. H. Johnson was awarded the plumbing and heating in a 20-room school building at Gaylord, Minn.

J. D. Hyland, 198 West Third street, is overhauling several bath rooms in lower town for Smith and Taylor, at 48 East Fourth street.

### News from the Northwest.

L. A. Tinnes, Blue Island, Minn., was awarded the heating contract in the new residence of Mr. Henry.

Vanaseh Hardware Co., of New Prague, Minn., was the



successful bidder on the plumbing and heating in the new Catholic school at Montgomery, Minn.

Loehl & Karker, Anoka, Minn., are installing a heating plant in the residence of Mr. Blanchard.

The Mason City Plumbing & Heating Co., of Mason City, Iowa, was awarded the plumbing contract for the new school building at Clear Lake, Iowa.

R. Leivestad, of Northfield, Minn., is very busy, having on hand the plumbing contracts for Mr. Bondgood, Mr. Ralraag, C. Hetle, and Mr. Gannon, beside the plumbing and heating in the new Lutheran church.

Miller Bros. & Co., of Morristown, Minn., are installing the plumbing in the residence of Bert Donaldson.

Melson & Pearson, of Litchfield, Minn., were successful in landing the plumbing in the new residences of J. Johnson and Mr. Peterson.

J. H. Shea, of LeSeur Center, Minn., is installing a heating plant in the residence of M. Gorman.

H. H. Strand, of Benson, Minn., has secured the plumbing and heating contract for the new high school.

## California

### San Francisco.

The regular course of business has been considerably interrupted by the holiday season and the usual year-end operations, and the local plumbing supply houses are this week giving most of their attention to stock-taking. This involves a little more work than usual this year, as dealers who have been carrying rather light stocks for some years past have found it necessary, with increasing requirements, to carry larger supplies. Definite figures on the past year's business have not yet been made out, but estimates are practically all favorable, and prospects promise another good year. Some dealers anticipate a building boom in San Francisco in the new year, especially in apartment houses. The city's record for the last season has about struck an average between that of Los Angeles, where the official valuation reached a total of about thirty millions, and the north coast cities, where building has been less active than for the previous year, the local record for the year being about twenty-three millions. The local trade hopes to see San Francisco again in the lead of the Coast cities within another twelve months.

The Geo. H. Tay Co. has been sending out a beautifully printed Christmas greeting folder to its many friends and customers in this part of the state. The company is now extremely busy with the annual inventory, and reports a very successful year's business.

The San Francisco office of the Wolverine Brass Works reports the heaviest year's business in its history, and the representatives in this territory are highly optimistic regarding the future. Their sales this year have been particularly heavy in the district of California between Sacramento and Bakersfield, which is probably growing faster than any other part of the Coast outside of one or two cities. They expect that the coming exposition will cause a boom in this city, and believe that any reaction after the exposition will be prevented by the gain in commerce from the Panama Canal. The company's Los Angeles business is now managed by B. E. Powers.

P. F. Howard & Co., at Second and Folsom streets, this city, is reaching out more actively for a share of the growing business of the towns across the Bay. It has opened a branch store in a prominent location on Broad-

way, Oakland, where it has a large store room and a fine display of goods.

H. W. Finch, Coast representative of J. M. Kohler Sons Co., plans to make a trip east soon after the first of the year, to visit the factories at Sheboygan, Wis. He will go by the northern route, probably stopping off at the principal points, and will cover the southern part of his territory on his homeward trip in February.

Figures have just been taken for the construction of the new Los Angeles county hospital, but the contracts have not yet been let, the bids being held under advisement. Bidders on the plumbing work were F. M. Parker, Thomas Haverty, Howe Bros., and Lohman Bros., the latter making the lowest figure at \$6,989.

The William F. Wilson Co. has been awarded the contract for plumbing, hot water circulating system, etc., for a six-story Class C building to be erected for R. D. McElroy at Sixth and Howard streets. The figure is \$12,500.

Willard C. Chamberlain, Coast manager for the Standard Sanitary Manufacturing Co., who returned a few days ago from a northern trip, reports signs of a business revival in Seattle and Portland, where things have been a little quiet for the last few months. H. L. Allison, representing this company, has just returned from Los Angeles.

The Acme Brass Foundry of Los Angeles has let a contract for the construction of a new plant at Torrance, the new industrial suburb of Los Angeles.

The Palace Hotel Company of this city will furnish steam and electricity to the new Sharon building on the opposite side of New Montgomery street, which will soon be the headquarters of the local General Contractors' Association. A permit has been secured to lay a 10-inch and a 5-inch pipe for steam, and other conduits for wiring, across New Montgomery street to connect the basements of the two buildings.

### BROOKLYN MASTER PLUMBERS' ASSOCIATION TO HOLD ANNUAL RECEPTION JANUARY 14TH.

The annual reception of the Brooklyn Master Plumbers' Association is to be held at Prospect Hall, Prospect Avenue near 5th Avenue, Brooklyn, N. Y., on Tuesday evening, January 14th. This is one of the largest and best halls in Brooklyn and is very accessible for such an affair.

Many of the prominent National, State and Local officials of master plumbers' associations will be in attendance. Tickets are \$1.00 each and can be obtained from Chairman Matthew J. Kennedy, 173 Amity Street, Brooklyn. The members of the entertainment committee are, in addition to Chairman Kennedy, as follows: Michael F. Gleason, Edward J. Belford, J. Louis Bosch, William A. Crane, Charles F. Mentzinger, Louis Frisse, James Johnston, Dennis J. Donovan, James T. Kennan, Robert E. Dingman, Patrick H. Gleason, Martin J. Hayden, Joseph F. Corcoran, Lewis A. Deiser, jr., William Eierman, Thomas E. O'Brien, James Jarcho, Frank J. Bryan, George F. Tracy, Michael J. McGrath, Samuel J. Corcoran and John J. Dixon, secretary and treasurer.

### Hitting the Pipe.

Janitor: Who was dat whistlin' down de tube?

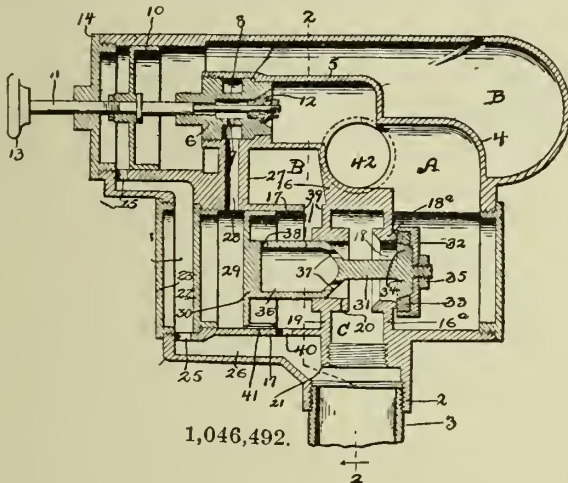
Helper: Woman on de third floor front wants more steam.

Janitor: Hit de third pipe a couple o' time wit de hammer.

# Patents

## Plumbing Department.

1,046,492. Flushing Apparatus. Walter Chisholm Ranson, Cleveland, Ohio. In a flushing device, the combination of a casing having an inlet connection and a flushing connection, a main valve interposed between said connections, a storage chamber in said casing, a main piston for operating said main valve and arranged to be itself operated by the liquid supplied through the inlet connection, an auxiliary valve arranged to control the flow of liquid from the inlet connection to said main piston, means for diverting a portion of the liquid flowing through the main valve into the storage chamber, and a motor for said auxiliary valve arranged to be operated by the liquid accumulating in the storage chamber to thereby close the auxiliary valve, substantially as specified.

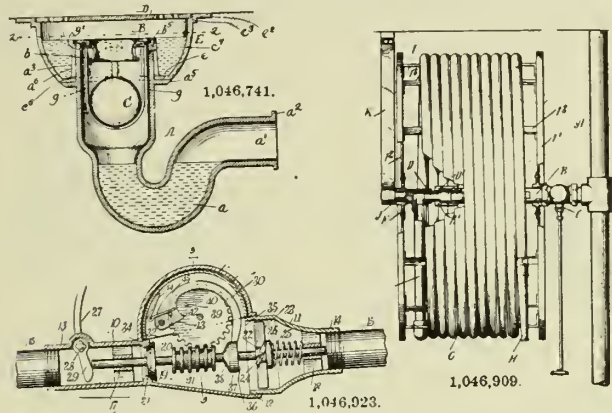


1,046,741. Drain-Trap. George J. Dehn, Chicago, Ill. The combination of a drain pipe having an upwardly extending inlet-terminal, a back-water valve in said pipe, a ring removably secured to said pipe and provided with a seat for the valve, a cage for guiding the valve to and from the seat, a ring secured to and forming the upper end of the cage and removable therewith, and means for detachably securing said rings together to permit the cage ring to be disconnected from the seat-ring.

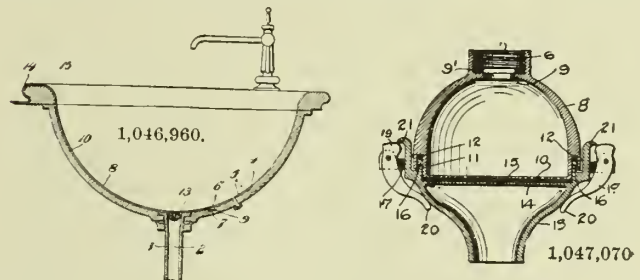
1,046,923. Flushing Device. Anton Williman, Houston Heights, Tex. A flushing apparatus comprising a casing forming a water passage, a valve commanding the passage, a shaft forming a stem of the valve, means for moving the valve stem, a device operated by the pressure of the flowing water to rotate the shaft, a member on said shaft having a beveled face and a cylindrical perimeter, a latch device mounted to rock toward and from the shaft, its end being movable into engagement with the shaft member on its said beveled face, and a latch-tripping device actuated by the rotation of the shaft.

1,046,909. Hose-Reel. Charles Wagner, Grantwood, N. J. In combination with a stand pipe having a horizontally extending branch pipe provided at its terminal with an internal conical seat, and a valve on the said branch pipe adjacent the stand pipe, of a drum having one end mounted to turn on the said branch pipe adjacent the said valve, a hose adapted to wind and unwind on the said drum, one end of the hose

having a nozzle, a hollow bearing having an inner conical portion mounted to turn in the said conical seat, the outer end of the said bearing terminating in a trunnion, a pipe disposed radially within the said drum and connected at its inner end with the said hollow bearing at a point between the trunnion and the said conical end, the outer end of the said pipe being connected with the other end of the said hose, and a fixed hanger in which the said trunnion is journaled.



1,046,960. Washbasin. John C. Bryant, Fayetteville, Tenn. In a device for the purpose set forth, a basin provided with a slab, the said basin having a water outlet opening, the basin being provided with registering depressions, a plate within one of the depressions and adapted to be arranged in a plane with the inner surface of the basin, a lever constructed of resilient material pivotally connected with the plate and adapted to lie within the second depression and to be arranged in a plane with the inner surface of the basin, a valve carried by the lever and engaging within the outlet opening of the basin, the slab for the basin being provided with a continuous depression registering with the last named depressions of the basin, the outer extremity of the slab being beaded, and the lever adapted to conform with the shape of the slab and to occupy the recess provided thereby and to have its extremity formed with an offset finger hold.

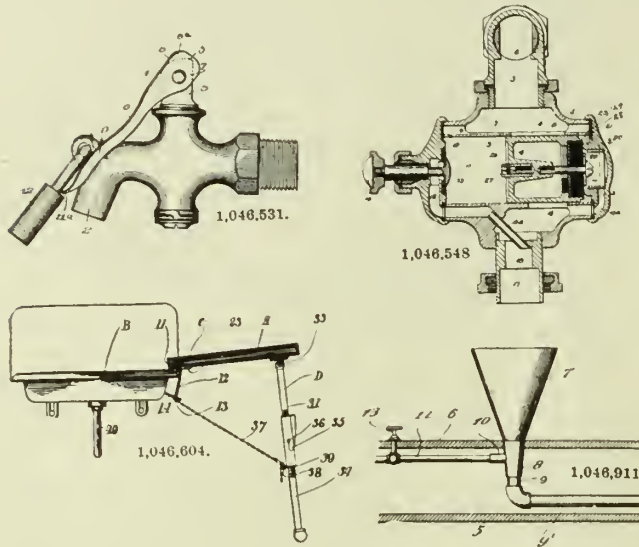


1,047,070. Filter. Bernard A. Kantrowitz, New York, N. Y. In a filter, the combination with a shell divided into two parts, and having perforated co-operating diaphragms, a filter between the diaphragms, a washer fitted in the groove in one of the sections, a flange in the other section and adapted to enter the groove, cams pivoted in one of the sections, and projections on the other section to be engaged by the cam to cause the diaphragms to compress the filter.

1,046,531. Faucet. Charles F. Wray, Rochester, N. Y., assignor to National Brass Mfg. Co., Rochester, N. Y., a corporation of New York. The combination with a faucet comprising a body with a downwardly curved discharge end and having a valve seat, and a rotatable valve head co-operating therewith provided with an upwardly extending flattened end having upon its forward side a rounded corner and at its rear side a shoulder, of a metal handle having two side ears and a central connecting portion embracing and



fitting over said flattened end and pivoted thereto, the shoulder co-operating with the central portion of the handle to limit its movement upwardly in a substantially horizontal position and the rounded edge permitting the movement of the handle in a downward direction into engagement with the body of the faucet, said handle having a portion near its outer end curved to fit the curved part of the body closely and provided with a slot and an eye on the body extending through the slot in the handle and adapted to receive a locking device.



1,046,548. Flush-Valve. Edgar J. Bloom, Tiffin, Ohio. A flush valve, having in combination a cylinder through which there is a main water passage, a single-head piston adapted to reciprocate in the cylinder and to control said main water passage, water passages for furnishing water under pressure through the respective end portions of the cylinder to drive said piston both ways in the cylinder, thereby opening and closing the main water passage, the pressure areas being arranged so that the piston normally closes the main water passage, a drainage passage for relieving the pressure at one end of the cylinder to allow movement of the piston for the purpose of opening the main water passage, a push valve controlling said drainage passage and closing upon its seat by the piston contacting it and arranged normally to be kept closed, substantially as described.

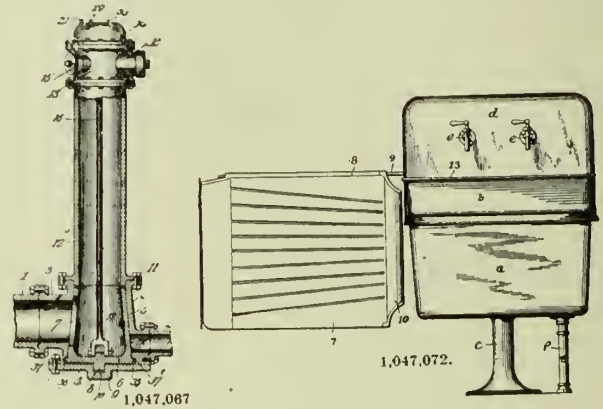
1,046,604. Draining Table for Sinks. Henry Edward Mordaunt Kensit, Ottawa, Ontario, Canada. An attachment for sinks and the like, comprising a table, means for collapsibly supporting the same, attaching members adapted to fasten detachably on the sink at any required distance apart to accommodate sinks of different widths and means for pivotally securing the table to the attaching members.

1,046,911. Sanitary Cuspidor. Gene L. Walker, Custer, S. D., assignor of one-half to Thomas B. Wilkins, Custer, S. D. A cuspidor comprising a discharge nipple adapted to be connected with a drain pipe and having an externally threaded end, a funnel-shaped body having inner and outer spaced walls united together at their larger ends, an internally threaded collar fitted in the smaller end of the body and abutting against the inner wall and detachably connecting the threaded end of the discharge nipple, the said inner wall being provided with rows of apertures near the larger end of the body and a water inlet nipple fixed in the outer wall of the body and communicating with the space between the latter and the inner wall for supplying water thereto.

1,047,067. Hydrant. John D. Jones, Walla Walla, Wash. A hydrant, having a vertical column, a valve casing mounted

at the lower end in communication with the column and provided with a water main connection and drain outlet, a truncated conical valve with a port in one wall thereof, the upper end of said valve being open and of substantially the same diameter as the column, a casing sealing the upper end of the column and provided with a plurality of outlets, a stem having its upper end journaled in said casing and projecting thereabove, its lower end being connected to the valve, an auxiliary valve for each outlet disposed within the sealing casing, a cap connected to the upper end of the sealing casing, and valve stems for operating the auxiliary valves and actuating the stem of the main valve journaled in said cap.

1,047,072. Sink. Anna W. Keichline, Bellefonte, Pa. In combination, a tub or bowl, a removable sink superimposed



upon and forming a closure for said tub or bowl, and a drip board adapted for supporting the sink when the same is moved so as to uncover the bowl.



Dyersville, Iowa.—Hesselman Bros. have opened a plumbing and heating establishment in the Whiting building on West Main street.

Chicago, Ill.—J. C. Calahan & Co. has been incorporated with a capital of \$2,500, to conduct a plumbing and heating business. The incorporators are: Harry V. Mullin, L. Parker and Harry L. Shaver.

Detroit, Mich.—Doetsch & Sons have incorporated their plumbing business with a capital of \$2,000.

Cleveland, Okla.—W. A. Johnson has opened a plumbing and gasfitting business in this town.

Utica, N. Y.—The West End Plumbing and Heating Co. is the style of a new business which has been opened here. Edward A. Carney, John J. Spohn and John J. Rossiter are interested in the new enterprise.

Mangum, Okla.—Geo. W. Winburne, jr., has opened a plumbing establishment in this town.

Little Rock, Ark.—Replogle & Ingle is the style of a new firm, which has opened a plumbing and heating establishment at the corner of Prospect and Locust streets.

Austin, Minn.—A. B. Weseman and L. Lewis have formed a partnership under the name of Weseman & Lewis and have opened a plumbing establishment at the corner of Bridge and St. Paul streets.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation.*

Whole No. 1048

CHICAGO, JANUARY 11, 1913

Vol. 62, No. 2

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

*Domestic Engineering says:* Interest works day and night, nor rests on Sunday or a holiday; collect that which is rightfully due you—let the other fellow pay the interest, if it must be paid.

#### CONVENTION ACTIVITIES.

THE State Conventions will now begin to engage the attention of the members. The first dates claimed are for the Iowa convention at Sioux City on January 14, 15 and 16. The Wisconsin meeting at Milwaukee occurs on January 15 and 16, and the Illinois meeting at Springfield on January 28, 29 and 30.

Matters of vital importance to the trade are to come up at these meetings. The importance of a full attendance of delegates is urged by the officers.

The Wisconsin plumbers will consider the new plumbing law, which it is hoped to have passed by the next legislature, to take the place of the obsolete law of 1908. Other subjects of importance will also be presented.

The Illinois body will consider a resolution to be presented to Governor-elect Dunne, for the appointment of a master plumber on the State Board of Health. Illinois is aggressive in many ways—but the provisions of the state for the conserving of the health of its citizens are meager, to say the least. The public spirit and broad-minded attitude of the Illinois plumbers will do much to further the cause of sanitation.

The influence of the plumber toward the prevention of disease will redound to his lasting reputation. Five years ago he would have been laughed at—today the public is eager for education and his advice is being listened to with respectful attention.

We look for the time to come when the plumber, as a sanitarian, will be known as the authority on the prevention of disease, and the physician will be consulted by those who have willfully disregarded the natural laws of health.

This time may seem a long way off, but so much progress toward this end has been made in a few short years, that much may be expected, if we work heartily toward that fulfillment.

What is needed is that the plumber have the courage to put in his bill a fee for knowing how to prevent disease; he will just that much sooner deserve to be classed among professional men who maintain sumptuous offices and charge for curing (or attempting to cure) disease that is preventable.

Their fees are for what they know; why not the same scheme of things for the plumber and heating man?

#### HOW ABOUT THE LIEN LAW?

IN THE discussion of competition before the state conventions, we understood attention is to be given to the provisions of the laws of those states which makes it possible for the unscrupulous supply man to practically enter into competition with the plumber and fitter.

The lien laws in many cases make this possible, and while they were originally intended to protect the contractor whose capital was thereby tied up, they are sometimes a detriment to the legitimate contractor who has sufficient capital and credit to float his own business.

The abuse of these laws by those who can make a temporary stake, has at times created unfair competition, whereby the supply man was the real contractor, and secured all the emoluments.

Perhaps there are times when this is necessary, or desirable, but it should be decided by mutual agreement, and not by the provision of a one-sided law.



# Mechanical Equipment of Stock Yards Inn

The Plumbing, Heating and Refrigeration of the New Hotel at the Union Stock Yards, Chicago, is an Interesting Piece of Work

AS A general thing hotels are more or less commonplace, but we believe that the reader will without doubt be quite interested in the old English type of Inn shown in our frontispiece which is known as the "Stock Yards Inn" on account of it being erected primarily for the use of drovers, shippers, commission men and others whose business interests center about the cattle business and cattle stock yards.

This structure, costing upward of \$200,000.00, was designed by Mr. R. S. Lindstrom of Chicago, who worked into

and Chicago and, while many of the constructive ideas are both original and most interesting, this article will be confined to a description of the plumbing, heating and refrigeration only as a good sample of hotel work installed in a most original type of structure.

## Drainage System.

The piping in all sewer connections below grade in the basement is of the extra heavy cast iron bell-and-spigot type with corresponding fittings, both being heavily coated with

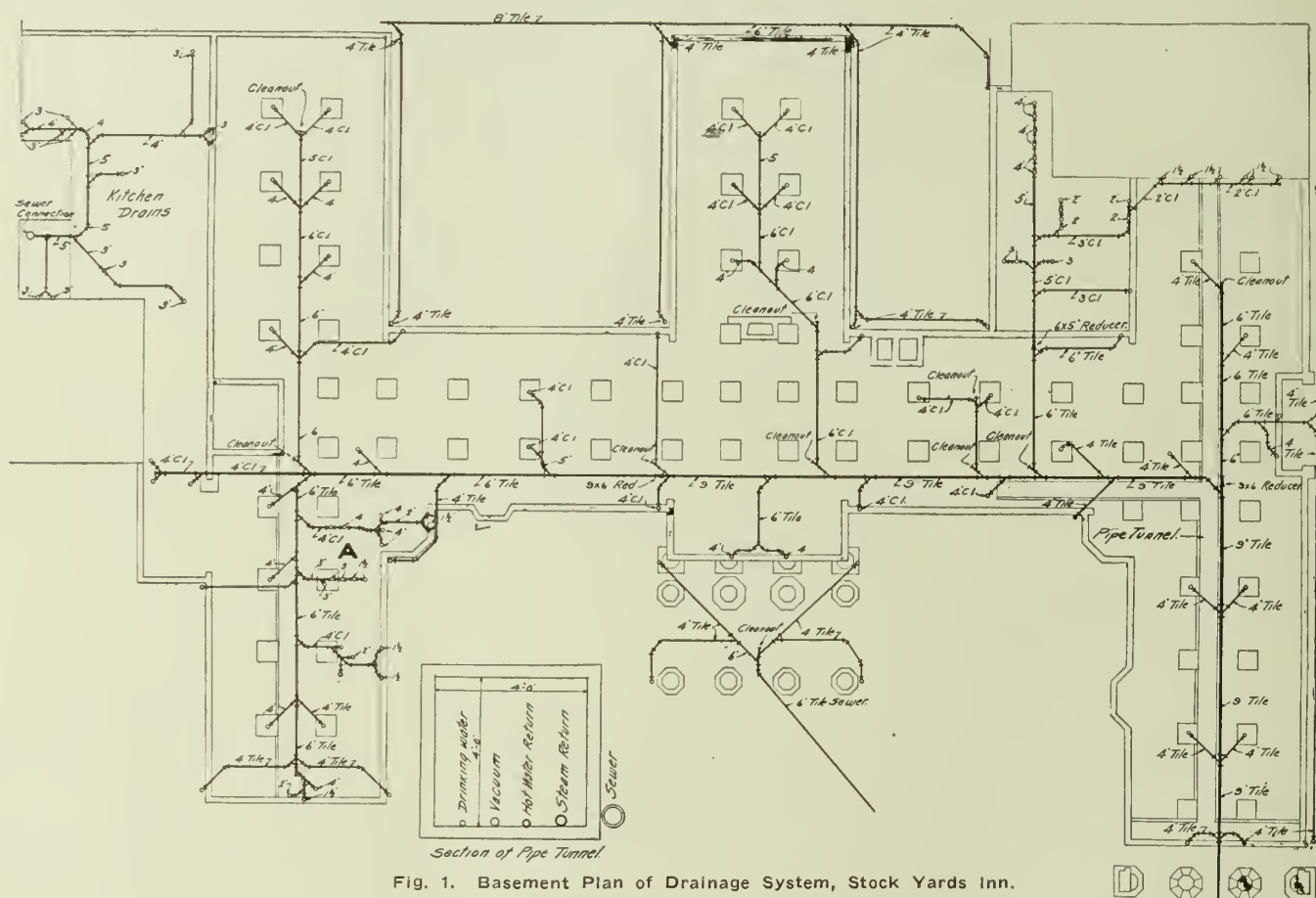


Fig. 1. Basement Plan of Drainage System, Stock Yards Inn.

practical shape and architectural development the idea which the president of the Stock Yards Company, Mr. A. G. Leonard, suggested. The superstructure is of steel with concrete floors throughout and room partitions of fire proofing and tile. Sleeping rooms are provided to the number of 175, the second floor rooms each having a private bath as shown in plan and elevation in Figs. 4 and 5, and each room on the dormer floor being equipped with a hot and cold water supply.

The exterior treatment is of an Elizabethan type, the first story consisting of light red brick and the second and third stories of a half timbered many gabled design as shown in the photograph. However, our readers will doubtless be more interested in the mechanical equipment, which was designed and installed under the direction of Ashley & Kaufmann, mechanical and electrical engineers of New York

hot asphaltum. The soil, waste and vent lines above the ground are standard wrought iron pipe, while the waste pipes exposed in the lavatories, toilets, etc., are of seamless drawn brass tubing, iron pipe size, and nickel plated where exposed. Short vent connections together with water closet and urinal bends were made with "D" weight lead pipe—the further use of which was not allowed.

The fittings on the drainage piping are of heavy recessed pattern cast iron, asphaltum coated, with the branches tapped

to a grade of  $\frac{1}{4}$  in. per foot. The fittings on the vent pipes are heavy malleable water pipe fittings, while the brass fittings are of cast brass, iron pipe size. Reducing fittings are installed where necessary and bushings are not used in any case. The joints between the cast iron pipe, and between wrought iron and cast iron pipe are made with oakum and pig lead, the wrought iron pipe having a ring or part of a coupling screwed on the end so as to form a spigot. The screwed joints are made up with red lead and boiled linseed oil.

At the bottom of each vertical soil stack, tee fittings are placed with heavy cast brass screw cleanout plugs of the same size as the pipe line in which they are located. Extension pieces are placed in these tees so as to bring the plugs flush with the plaster line wherever the pipes are run in chases and similarly where they come back of alderene work. Over these cleanout plugs are placed cast brass covers convexed so as to receive the head of the cleanout plug and polished and nickel plated on the external surface. All the

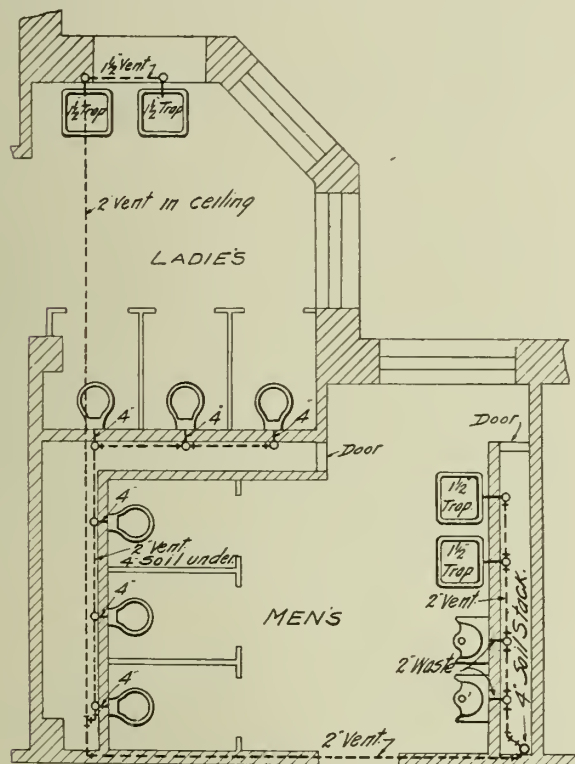


Fig. 2. Detail of First Floor Toilets.

horizontal runs of iron pipe are supported with pipe hangers at ten foot intervals and the vertical stacks are hung from the walls, or each tier of beams, by collars and clamps.

On all the main floors the pipes running through the finished walls, marble or other partitions, together with the floors and ceilings, have on the exposed side an escutcheon (cast brass, polished and nickel plated for the brass pipes) and cast iron nickel plated or bronze for the iron pipes) the passage through the construction being formed by iron pipe sleeves.

Where the soil stacks and waste or vent pipes are run up through the roof they are flashed with 6 lb. lead turned into the hub of the pipe, calked and made water tight to the roof with allowance for expansion and contraction. All the horizontal soil, waste and drain pipes are run with the grade of at least  $\frac{1}{4}$  in. per foot wherever conditions permit.

#### Drainage.

The entire drainage for the building is connected into one 9 in. house sewer which makes connection with the private

sewer near the point of entrance into the Halsted Street public sewer. Fig. 1 gives a complete drainage plan of the entire basement and all connections between the vertical stacks and the horizontal pipes shown on this plan are made through Y branches and eighth bends, the upper ends of the horizontal drains being closed with cleanout screws. All changes in direction are made either with Y or eighth bends and branches to all fixtures are likewise formed with similar fittings. The vent lines which are connected to all fixtures

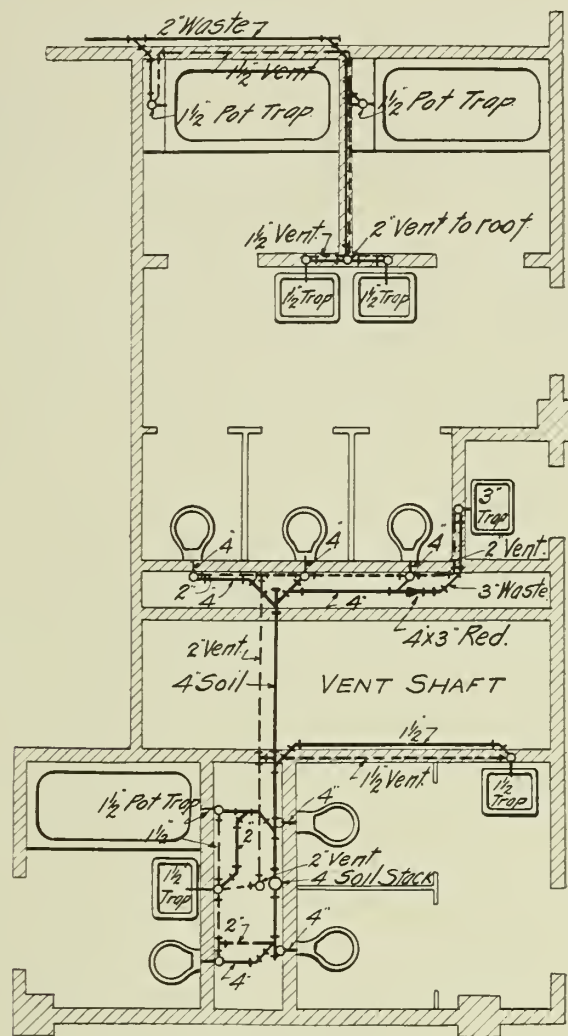


Fig. 3. Detail of Third Floor Toilets.

extend up through the roof and have the lower ends connected at the base to the corresponding waste or soil line. They are graded so as to discharge all water of condensation and the bottom connection is made in such a manner as to avoid the danger of obstruction from accumulative rust. Each vent line is increased in size before going through the roof.

The floor drains consist of flush cast iron drain boxes with flush bronze removable strainers and a full size running trap of at least 4 in. in diameter on the drain pipe, with cleanouts extended so as to finish flush with the floor. Each drain is also provided with a  $\frac{1}{2}$  in. water supply.

Fig. 2 shows the main first floor toilet with the vent piping (the soil and waste being shown on Fig. 1 at "A"), while Fig. 3 gives the main third floor toilet room and the method of piping.

#### Water Supply.

The water supply piping is of standard weight wrought iron pipe with heavy, beaded, malleable iron, water pipe fit-



tings except where exposed in the lavatories, toilets, etc., and where carried under the tile or cement floors or coming in any way into contact with cement, in which locations seamless drawn brass tubing of iron pipe size with cast brass fittings of similar weight are substituted. Wherever this brass piping is exposed it is nickel plated. The water supply is brought into the building through a 3 in. line with

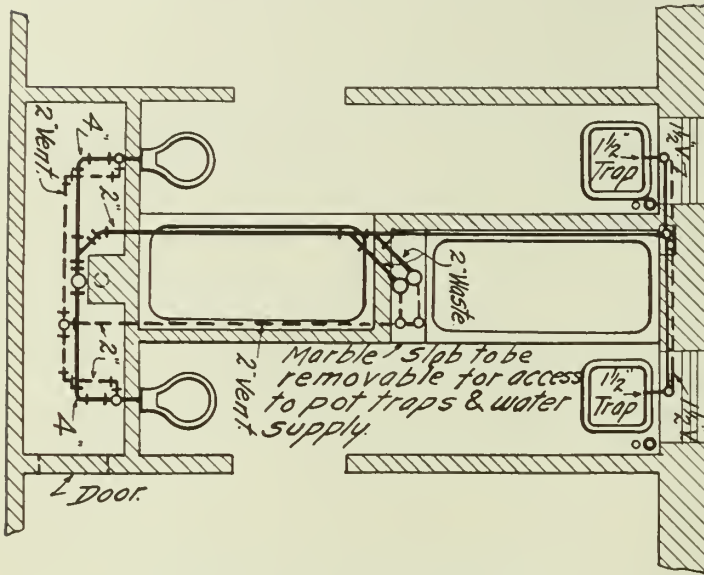


Fig. 4. Plan of a Typical Bathroom.

full size shutoff valves at the tap just inside of the building. From the header at this point are run three cold water lines, the first to all toilet fixtures, sinks, etc., throughout the building, the second to supply the hot water heater and the third to the ammonia pumps, compressors, ice machine, vacuum cleaners and other machinery in the sub-basement.

**Cold Water Supply.**

The branch sizes for the cold water service run from the general supply main to each fixture are as follows:

- Lavatories ..... 1/2 in.
- Baths ..... 3/4 in.

To this may be added a total of four bronze key sill cocks, located at various points around the structure, and which are provided with drain valves and drain branches being supplied through a 3/4 in. pipe from the nearest cold water line.

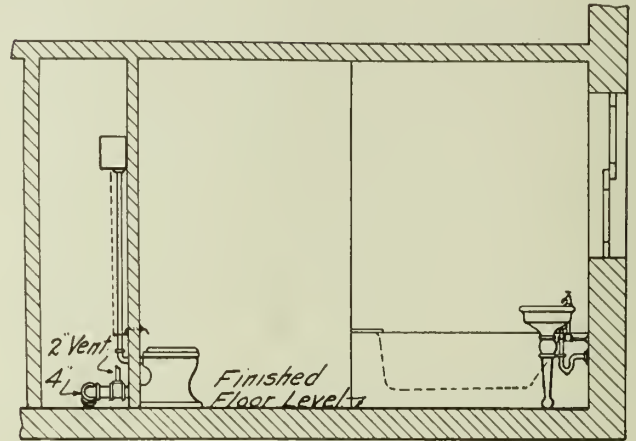


Fig. 5. Elevation of a Typical Bathroom.

**Hot Water System.**

The hot water system is supplied by a horizontal heater with a steam coil. From this heater a 4 in. hot water supply line is run, similar to the cold water supply already described and continued so as to supply all necessary fixtures with hot water. From the top of most of the various hot water supply lines are taken return circulation pipes which are continued down to the sub-basement and there connected into a return main. There is also an expansion line taken off the top of the hot water riser and continued up and through the roof where a vertical check and a return bend are placed so as to discharge onto the roof. An isometric diagram showing complete the hot water system is

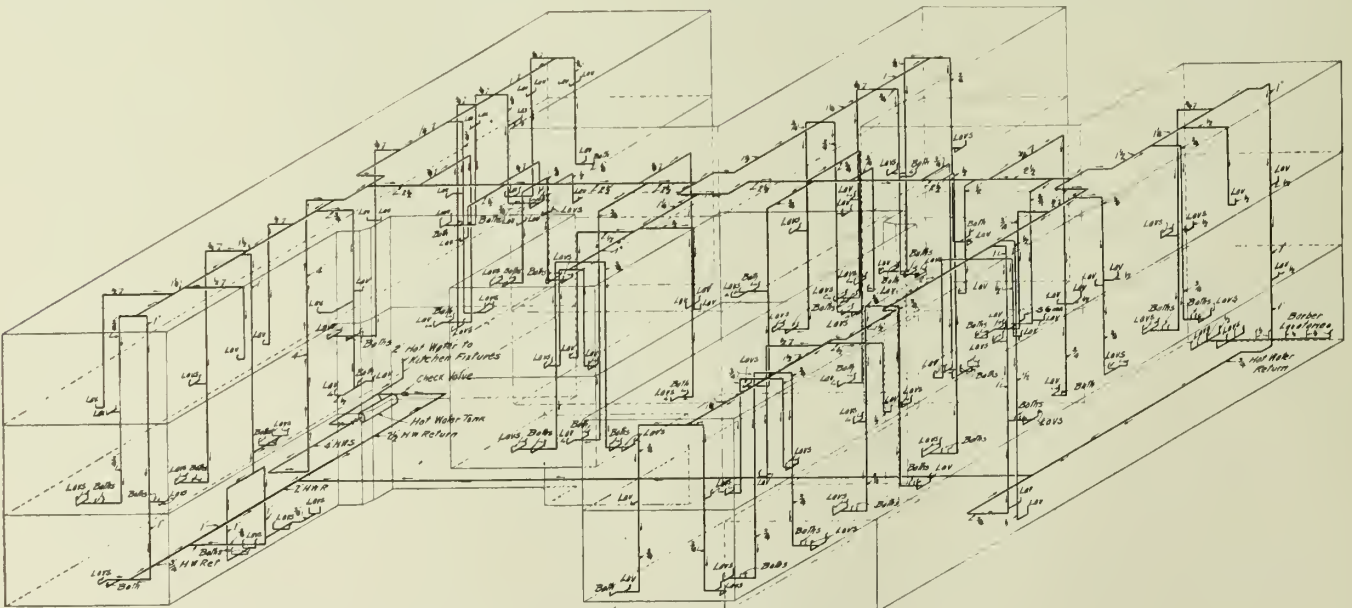


Fig. 6. Isometric Diagram of Hot Water System.

- Water closets ..... 1/2 in.
- Urinals ..... 3/4 in.
- Slop sinks ..... 3/4 in.
- All other sinks ..... 1/2 in.

given in Fig. 6 and it will be easily seen from this diagram which hot water lines have their returns carried back to the heater so as to form a circulatory system. The short branches to fixtures for the hot water supply are as follows:

Slop sinks .....¾ in.  
Other sinks .....½ in.  
Lavatories .....½ in.  
Baths .....½ in.

Air chambers are installed on all branches to fixtures on both the hot and cold water pipes and consist of a 10 in. extension of the pipe above the fixture connection.

**Drinking Water System.**

A drinking water system is installed as shown in Fig. 7 consisting of two ¾ in. ice water lines, one in the north and

**Fixtures.**

The water closets where possible are furnished with concealed tanks and 78 of these were syphon jet with wall outlet. In the public bathrooms 17 seat-action automatic wash-down closets are used, of which 12 are fitted with concealed tanks and 5 with exposed tanks.

The lavatories are of two sizes, those for the bathroom (numbering a total of 161) being 18 x 20 in. all roll rim, vitreous china, and those in the public toilets and barber shop (numbering 13 in all), being 20 x 24 in. and of sim-

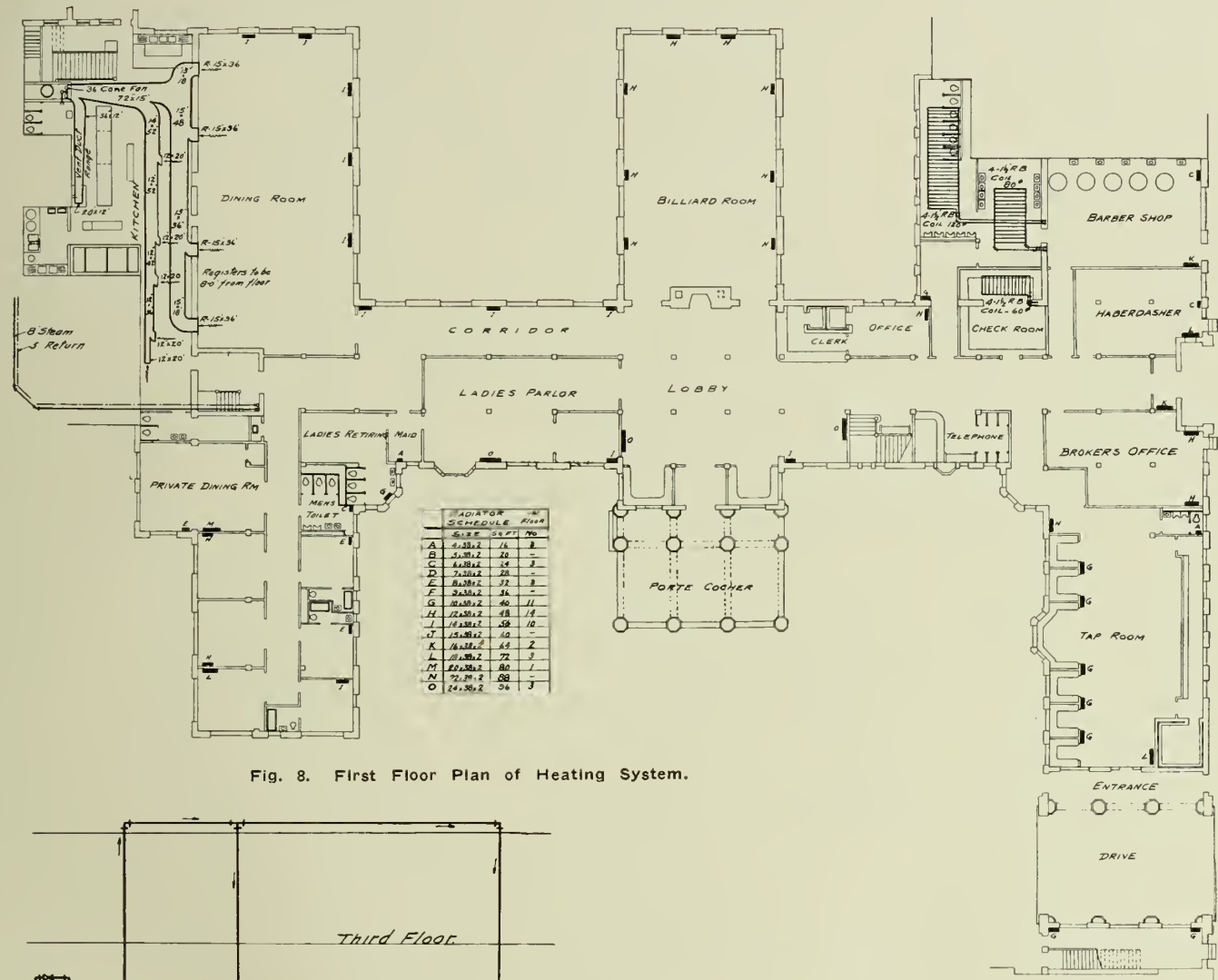


Fig. 8. First Floor Plan of Heating System.

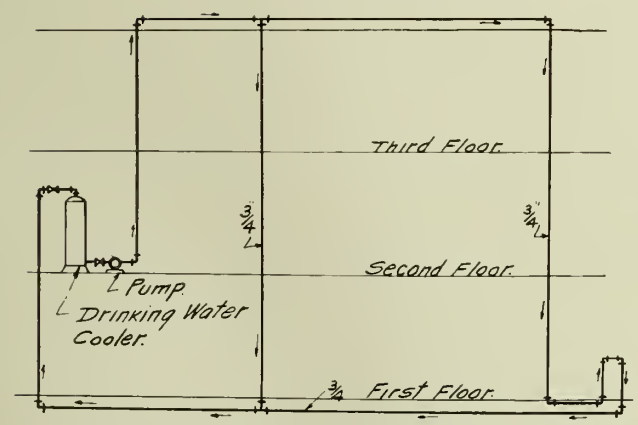


Fig. 7. Diagram of Drinking Water System.

one in the south service room; these lines have ½ in. outlets on each floor, one near the office, one in the bar, and one in the kitchen. In the basement and attic a ¾ in. main is run connecting the risers, these mains being extended back to the ice water pump which is located in the ice plant room over the kitchen. A complete description of the method of cooling the drinking water will be given later under the "Refrigeration System."

ilar type. The lavatories are fitted with white metal, ball bearing, self-closing basin cocks and have heavy white metal plugs, chains and chainstays. The supplies and traps are of brass with belted finish and painted with enamel after installation.

The baths installed consist of 72 five foot enameled iron, recessed baths which are fitted with heavy pattern white metal compression bath cocks and connected wastes and overflow. Instead of using a front plate on these recessed baths they are finished with Keene cement supported on wire lath, an experiment which seems to be working out very satisfactorily.

The six slop sinks are of galvanized iron with trap standards and long pattern compression red-metal bibbs.

The urinals consist of 3 batteries of two and 1 battery of five 18 in. porcelain urinal stalls. These have automatic tanks with white metal trimmings.



The ice water drinking fountain installed in the servants' hall is a special fountain of vitreous china.

Vacuum Cleaning Piping.

A vacuum cleaning system is also installed with pipes running up from the basement with outlets at the various floors, the changes in direction being made with long sweep drainage fittings and with cleanouts located at numerous intervals. The outlets for hose connections on the several floors are made by means of Y branches inserted in the risers

Cold water mains are made a very light blue; drinking water mains, dark blue; hot water supply, light red; hot water return, light green; vacuum cleaning pipes, yellow.

HEATING SYSTEM.

THE heating for the entire structure is direct steam installed under the overhead system; that is to say, the main steam supply, which is of 8 in. in size, is brought into the building through a pipe tunnel from an outside heating plant and after entering the building the

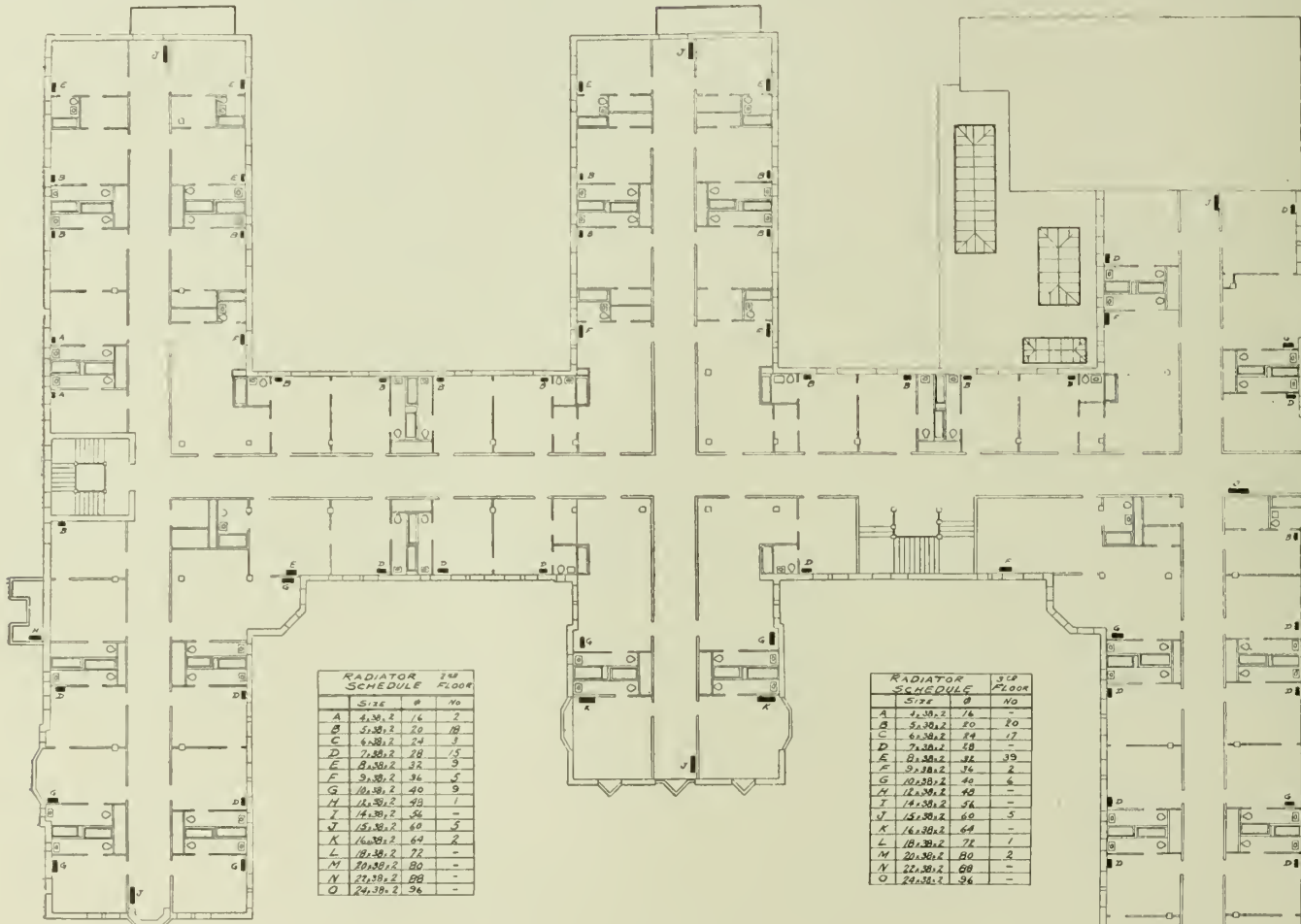


Fig. 9. Second and Third Floor Plan of Heating System.

with extended nipples and bronzed 1/4 in. hose cocks of the flush type with screw covers and safety chains. A discharge pipe is run from the engine room up to and through the roof.

Gas Piping.

Gas is brought into the building through a single 2 in. main with a gas cock and meter at the point of entrance. From this location a system of gas mains and risers is run so as to supply gas outlets generally for emergency use in all corridors, stair halls, etc. Besides this, outlets are provided for the connection of numerous gas stoves, heaters, etc., as required. All the gas pipe is of plain black iron with galvanized malleable fittings draining toward the gas meter or risers and with the joints made tight without the use of gasfitters cement. No branches smaller than 3/8 in. are used and even this size is confined to single side outlets only. On completion of the work all the plumbing and gas piping was primed with shellac and given two coats of adamantine paint.

Covering.

All the covering is painted two coats of lead and oil and tinted as follows:

main is carried direct in its full size up to the roof space in the attic. Fig. 8, which is a plan of the first floor of the hotel, shows this 8 in. main coming in below the floor in the basement and turning up, while Fig. 10 (which is the plan of the roof space over the second floor), shows the top of the 8 in. steam main riser and the horizontal distribution in the roof space.

From the ends of these horizontal branches coils are supplied as shown and drops are run down at all points where radiators are located on the floor below, thus supplying the radiators and caring for the condensation at the same time

without having the flow of the returns against the flow of the steam. At the bottom the steam drops are connected up into the return mains as shown in detail Fig. 11, which return mains are run together into a 5 in. line and carried back through the tunnel, all as shown on the first floor plan.

Fig. 9 shows a plan of the second floor and gives in the schedule, a list of the radiator marks, the number of sections, the height of the sections, the number of columns, total area in square feet, and the number of such radiators on each floor. This plan is fairly typical of the

made of galvanized iron with register faces on the dining room inlets, of a finish to tone in with the dining room decorations. From the cone fan the exhaust is carried up in the vent shaft and discharged into free air.

#### REFRIGERATION SYSTEM.

THE refrigeration system installed in this hotel is for the purpose of cooling refrigerators in the kitchen and other locations, the cooling of the ice water which is circulated through the building, and for the manufacture of

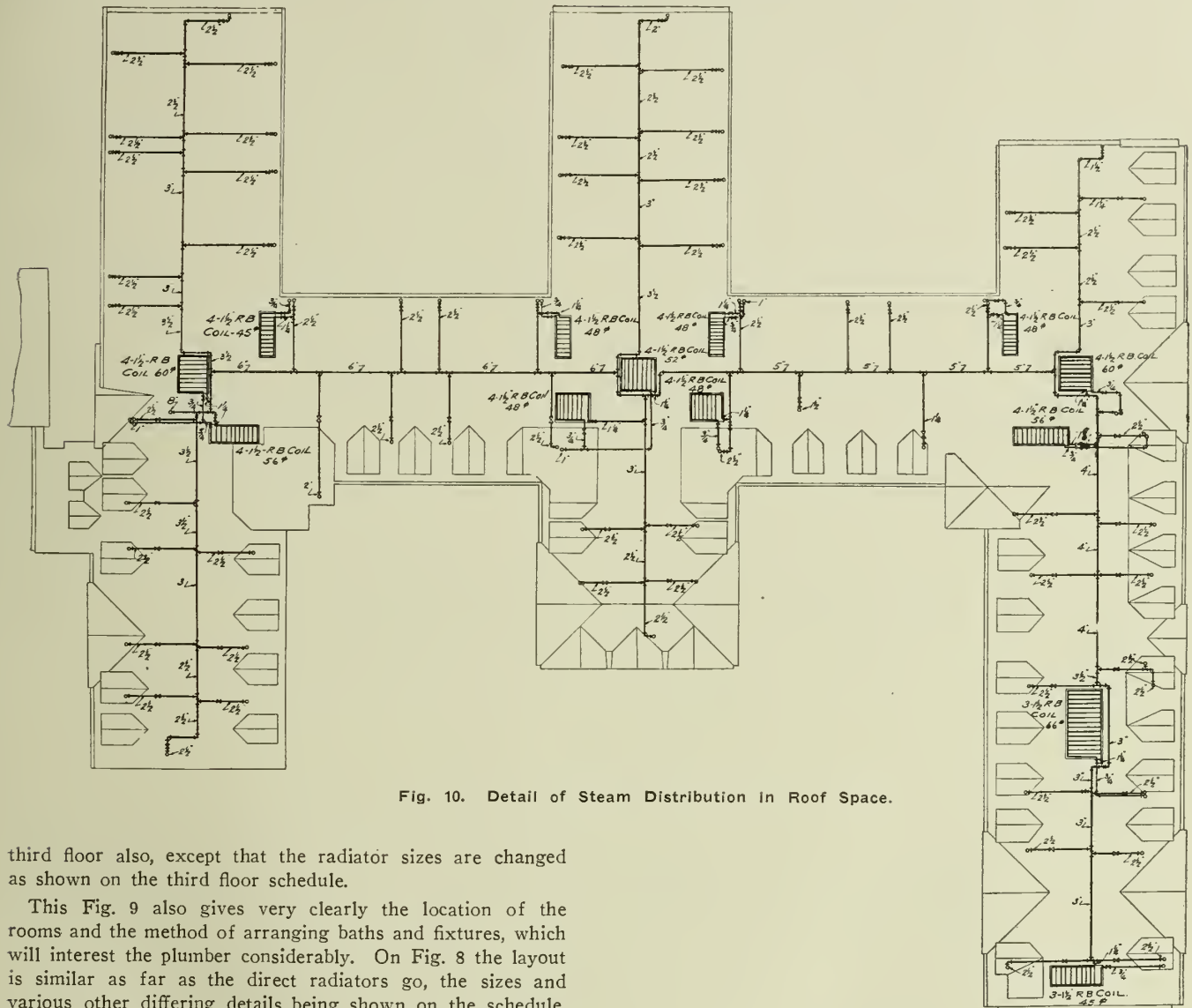


Fig. 10. Detail of Steam Distribution In Roof Space.

third floor also, except that the radiator sizes are changed as shown on the third floor schedule.

This Fig. 9 also gives very clearly the location of the rooms and the method of arranging baths and fixtures, which will interest the plumber considerably. On Fig. 8 the layout is similar as far as the direct radiators go, the sizes and various other differing details being shown on the schedule. It will be also noted that there is an exhaust system provided for the dining room and kitchen. It can be seen that there are four exhaust registers installed for the dining room located 8 ft. above the floor and each 15 x 36 in. These are connected into a separate exhaust flue, which is enlarged to take the connection of the kitchen exhaust flue, but at such a point that there is little possibility of any of the kitchen odors blowing back into the dining room through reverse currents, even though the fan may not be in operation. This is the reason for running two identically parallel ducts where otherwise one of larger size would have sufficed.

The ventilating inlets for the kitchen consist of five 12 x 20 in. inlets, while a special vent duct is provided for the range 20 x 12 in. in size. The exhaust is maintained positively in these ducts by a 36 in. cone fan installed at the point where the ducts enter the vent shaft. The ducts are

half a ton of ice every thirty-six hours. Probably a good idea of an arrangement of the refrigeration plant can be obtained by reference to Fig. 12, which is a plan of the layout of the kitchen fixtures, refrigerators, etc. Directly over part of the kitchen is placed the bakery and refrigeration room, of which a general arrangement is shown in Fig. 13. A cross section of both of these rooms on Line "A-A" is given in Fig. 14.

The plant consists of a compressor, having a capacity equivalent to melting eight tons of ice in twenty-four hours, which is operated by an alternating current motor through a belt drive. Calcium chloride is cooled in a brine tank by direct expansion, from which tank the brine is circulated through the various coils in the refrigerators and water cooling tank, this circulation being maintained by electric



pumps. The ice is manufactured by the can system in an ice tank, while the drinking water is circulated through the drinking water system also by an electric pump.

The compressor is briefly described as a single acting type 6 in. in diameter and 8 in. stroke. The ammonia cylinder is provided with a cooling jacket lagged and finished with

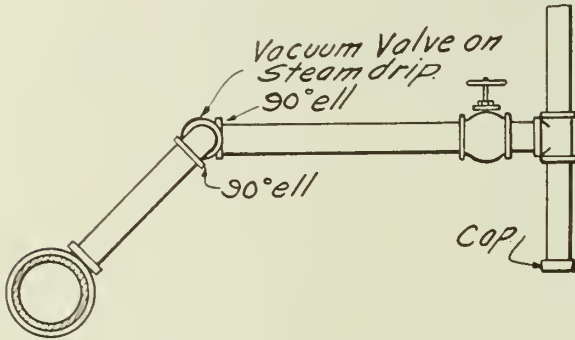


Fig. 11. Detail of Connection of Steam Drops to Return.

$\frac{3}{8}$  in. steel, painted jacket. The piston rods are provided with metallic packing and the valves are cushioned and so designed that wear can be taken up and the operation kept noiseless. The compressor is fitted with indicator piping and an approved indicator is provided. The ammonia cylinders are supplied and fitted with sight feed lubricators having spiral condensing coils.

Oil separators are installed with baffles arranged so that the oil and scale is abstracted from the ammonia gas and

may be disconnected and cut out of service for cleaning or repairing without interfering with the operation of the other sections.

The valves and expansion valves on the ammonia line are square flanged, with gland packed stuffing boxes and soft metal seats, and are of the type which permit repacking while under pressure. All the joints on the ammonia lines are made up with male and female fittings with four bolts each. The pipe threads and flanges were tinned and after the flanges were screwed on to the pipe the joints were flashed with solder. All piping is of wrought iron and not steel, while the brine mains and risers are extra heavy with extra heavy fittings.

The brine circulating pump has a capacity of 25 gallons per minute against a 60 lb. static head; the brine head is insulated with sheet cork and is boxed in with wooden lagging put together with screws so as to be easily removed, while the space between the boxing and the pump is filled with granulated cork.

The brine mains and pipes are extra heavy black iron painted before covering. Close to the brine tank is installed a strainer fitting with a valve between the strainer and the tank. Wherever the pipes pass through walls, floors or partitions No. 20 gauge galvanized iron sleeves of sufficient size to enclose the insulation are installed. These sleeves are carried above the floor to prevent water from running down to the floor below and the openings are covered with heavy cast iron split floor and ceiling plates.

The brine tank is made of  $\frac{1}{4}$  in. boiler plate riveted and braced with reinforced outlets with suction pipe. This tank

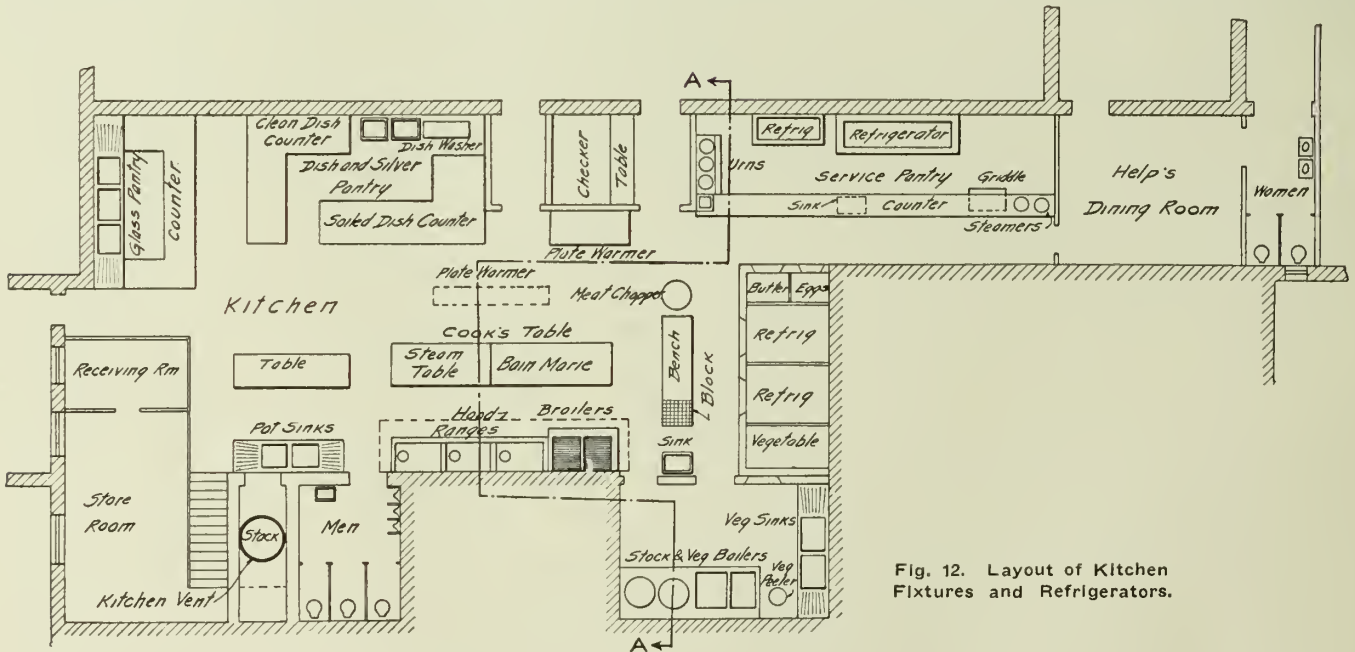


Fig. 12. Layout of Kitchen Fixtures and Refrigerators.

deposited in the bottom of the separator, whence it is blown out.

The ammonia receiver is 12 in. x 5 ft., made of the best flanged steel with a welded shell and heads and is guaranteed to stand 1,000 lbs. pressure. These receivers are of the horizontal type and are set on stands.

The condenser is a double iron pipe, counter current condenser of 6 pipes high, and in one section 17 ft. 6 in. long; it is provided with a gas inlet and liquid outlet, together with valved water inlet, outlet and valved purge connection. It is built of  $1\frac{1}{4}$  in. pipe inside, and 2 in. pipe outside, both extra heavy wrought iron with extra heavy fittings, and is connected to the headers in such a manner that any section

is insulated in the following manner. It is supported on  $1\frac{1}{4}$  in. boards resting on 2 in. sleepers which set on 4 in. sheet cork raised 3 in. above the cement floor. The sides of the tank are similarly treated while the top is 6 in. thick with boards and paper at top and bottom, the space between being filled with granulated cork. This top is hinged to provide for inspection. The drinking water which is cooled is based on the amount of  $1\frac{1}{4}$  gallons per minute through 30 degrees Fahr, which, assuming an average incoming temperature of 70 degrees, means that the water cooling tank has a capacity of cooling this amount of water per minute down to 39 degrees Fahr.

The cooling tank is an open tank insulated on all sides,

bottom and top, and has a make-up water connection controlled by a ball float valve with a sand filter in the line. The tank is of galvanized iron of about 200 gallons capacity and is lagged after being insulated with cork.

The drinking water circulating pump is direct connected with an alternating current motor and handles 12 gallons of water per minute.

The cooling of the refrigerators of the kitchen is accom-

plished by a list of the ice boxes and their approximate sizes.

Bakery refrigerator, 6 ft. x 2 ft. 3 in. x 6 ft. 6 in..

Ice cream refrigerator, 6 ft. x 2 ft. 3 in. x 2 ft. 6 in.

Chef and cooks' refrigerators, 16 ft. x 8 ft. x 8 ft.

Beer storage, 12 ft. x 12 ft. x 10 ft.

Milk storage, 6 ft. x 2 ft. 6 in. x 6 ft.

Service and pantry refrigerator, 8 ft. x 3 ft. x 6 ft. 6 in.

Ice cream refrigerator, 5 ft. x 2 ft. x 2 ft. 6 in.

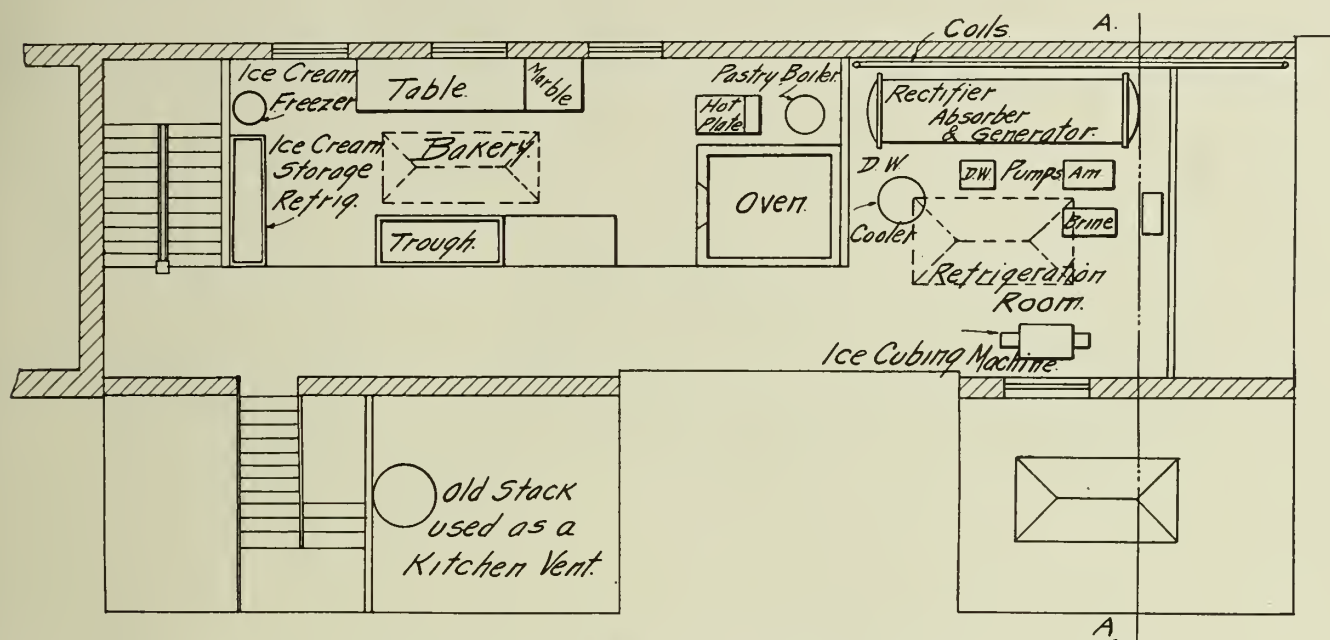


Fig. 13. Layout of Bakery and Refrigeration Rooms.

plished by a sufficient amount of  $1\frac{1}{4}$  in. pipe to keep each box at 36 degrees Fahr. with not more than  $\frac{1}{2}$  in. of frost on pipes and under ordinary operating conditions. These coils are valved on the inlet and outlet with a right and left

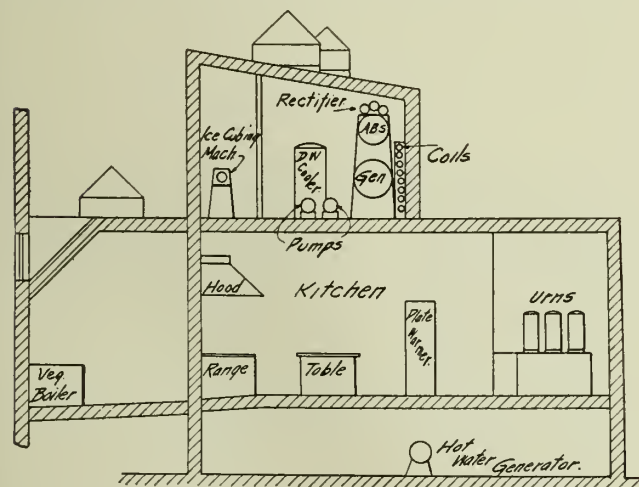


Fig. 14. Cross Section of Bakery and Kitchen on Line "A. A."

coupling placed between the valve and the coil. The brine mains to and from the boxes are 2 in. in diameter and are covered with extra heavy brine pipe covering and having valves located where they connect with the refrigerator boxes.

The ice plant has the ice cans built for 100 lb. cakes of ice and made of No. 16 galvanized iron riveted and soldered tight; a  $\frac{1}{4}$  x 2 in. galvanized band is run around the top with  $\frac{5}{8}$  in. lifting holes punched through it, and an ice dump is installed capable of handling these 100 lb. cans. The fol-

lowing is a list of the ice boxes and their approximate sizes.

The motor for the compressor is a 10 horsepower squirrel cage motor wound for 3 phase, 60 cycle, 220 volt current running at 900 revolutions per minute under no load and controlled by a compensator.

The brine mains and pipes, including valves and fittings, are covered with cork insulation, that on the mains and pipes being 3 in. thick with mineral rubber finish recanvased, sized and painted. The ammonia connections (except the return gas lines in the engine room), are not covered. The return gas lines are covered with ice water pipe cork covering.

#### Bad, Isn't It?

"There seems to be a strange affinity between a darky and a chicken. I wonder why?" said Jones.

"Naturally enough," replied Brown. "One is descended from Ham and the other from eggs."

#### He Got Even.

An intoxicated man boarded a train. When the conductor, who weighed nearly three hundred pounds, called for his ticket he was too drowsy to hunt for it. The stout conductor became impatient, and after attending to the rest of the passengers' tickets, returned to the intoxicated man, and, with much authority, demanded:

"Now you'll have to do one of three things: show your ticket, pay your fare, or get off."

By this time the man was able to find his ticket and was more disposed to talk, so, as the stout conductor was leaving him, he called after him:

"Say, see here, you'll have to do one of three things, too."

"What are those?" asked the amused conductor.

"Walk more, eat less or bust," was the reply, which started a laugh all around.



# The Electric Motor in Heating and Plumbing

Part II.—By George F. Benson

A "direct-connected" motor which is often spoken of is generally considered as a motor connected to the piece of apparatus to be moved without the use of belts and pulleys. The connection may be by gears, by couplings or the turning part of the motor may be mounted on the same shaft as the rotating part of the apparatus. Fig. 6 shows a Wagner motor direct connected to a large size air compressor suitable for pneumatic tank systems of large extent. The mounting of the motor on the same

motor at 1,500 revolutions per minute. Hence the introduction of gearing which allows a motor to run at its normal speed and the fan or pump at its normal speed, the gearing making up the difference and resulting in a great saving in the size of the motor required. Fig. 7 shows a direct connected disc fan run by an electric motor, while Fig. 8 shows a Westinghouse controlling box often installed for larger ventilating fan motors.

Something a little novel in ventilating schemes is shown

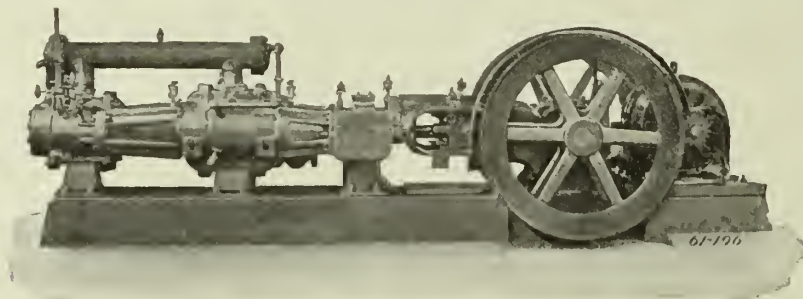


Fig. 6.



Fig. 7.

shaft with the apparatus is not generally customary except in cases of very large and slow moving machines, the preference being to use a flexible coupling instead. In either case it is necessary that the motor run at exactly the same speed as that of the apparatus, and this is what makes the resort to gearing so common. To appreciate this it should be understood that ideal motor speeds gen-

in Fig. 9 which is an application of a Westinghouse electric motor and a blower in a manner to make ventilation of an office room possible during the coldest weather without draughts. The suction pipe of the blower is connected to a hole in a board 6 inches high which is located in the bottom of the window and the discharge air is carried down by the pipe so as to be thrown against the steam radiator before going out into the room.

Another use closely affecting the plumber is the application of the motor to the washing machine. Two typical examples of this are shown in Figs. 10 and 11, and there seems to be no reason why these machines should not be put in permanent locations and hot and cold water and



Fig. 8.



Fig. 9.

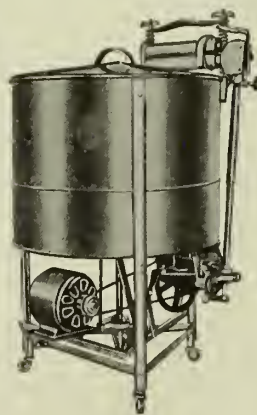


Fig. 10.

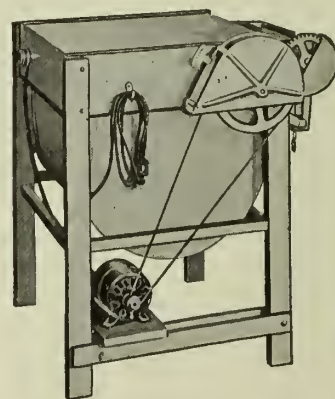


Fig. 11.

erally lie between 1,000 and 2,000 revolutions per minute and that a motor giving 5 horsepower at 1,500 revolutions per minute would only give about  $2\frac{1}{2}$  at 750 revolutions per minute and about 1 horsepower at 300 revolutions per minute.

From this it can be seen that in the case of a fan running at 300 revolutions per minute and requiring only 1 horsepower to operate would have to have, at 300 revolutions per minute, what is normally called a 5 horsepower

waste connections provided to the advantage of all concerned.

One of the most suitable places for motor use is in the drive of the vacuum cleaning system as it is especially desirable on account of its lack of noise, its cleanliness, and its ease of operation. Fig. 12 is a typical case of an electric motor thus employed although, of course, the various types of vacuum cleaners are without end.

Now, in regard to size of motor necessary, almost any

manufacturer of any piece of apparatus knows how much power it takes to run it at a given speed. So much being determined, the next thing to be looked into is the type of load and length of time of operation. At first glance it might seem that a machine requiring 5 horsepower to operate it ought to have a 5 horsepower motor. For continuous operation (that is, constant running at full speed for four or five hours), this may be all right, but for intermittent operation it is not necessary. It is a peculiarity of electric motors that the power they will deliver constantly and the power which they will deliver momentarily are vastly different.

Suppose a motor running continuously is rated by its manufacturers at 5 horsepower. You can be sure that it will supply 5 horsepower and not figure on only 3 or 4 as you might with a steam boiler rating. Now, if you

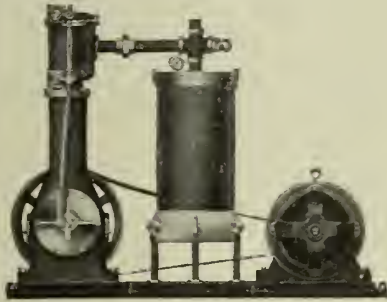


Fig. 12.

put that motor on a pump which can fill up a house tank in an hour you could probably get  $7\frac{1}{2}$  horsepower out of it for an hour (or 50 per cent overload), while if it would fill the tank in 15 minutes you might get 9 horsepower out of it for 15 minutes, without danger. Any manufacturer of motors will be glad to tell you the percentage of overload which he will guarantee his motors to carry for any given length of time.

Suppose, for example, a house pump took 30 minutes to fill up a house tank from the low level to the high level as determined by the tank switch float, and that the motor to be installed is guaranteed to carry 75 per cent overload for a period of thirty minutes. Then if your house pump requires 2 horsepower to operate this 2 horsepower is the normal motor rating plus 75 per cent for overload. This will leave us with an actual normal rating required of only 2 divided by 1.75 or 1.12 horsepower. In this case a  $1\frac{1}{4}$  or  $1\frac{1}{2}$  horsepower motor would do quite well.

#### A CRUSADE AT CLEVELAND FOR BETTER VENTILATION.

Cleveland people believe in good ventilation and are doing a lot of work right now to secure it. The Cleveland Press of January 4th prints the following:

Foul-smelling and deadly germ-infested air in theaters, schools, public buildings and factories is to be banished through a joint campaign of the city building department and healthers.

Healthers attribute a vast amount of the pulmonary diseases of the last few months to public gatherings where ventilation has been deficient. The campaign will be prosecuted hand in hand with the healthers' anti-spitting crusade.

Twenty-two deaths from pneumonia, 10 from tuberculosis and six from diphtheria were reported to healthers during the week ended Friday night. The total deaths of the week, 154, is an increase of six over the same week last year.

The building department will enforce laws requiring adequate ventilating facilities. Healthers' police power will back up the department's rulings. Offenders are liable to arrest and prosecution. The penalty is a fine from \$5 to \$500 or up to six months' imprisonment.

Moving picture theaters, in converted store rooms that are almost windowless and often without fans; tenement and lodging houses, and factories of ancient construction are declared the most dangerous offenders.

#### Poor Ventilation in Winter.

"Lodge rooms, crowded stores, any places where large crowds assemble, including street cars, are as badly ventilated as some of the picture theaters," said Healthier Friedrich.

City board of efficiency has approved an appropriation for a ventilating engineer and a corps of assistants.

"Proper ventilation is not given buildings in the winter time because it is expensive," says Healthier Ford. "Without modern systems, ventilation simply means letting in the cold outside air and increased consumption of fuel.

#### Man an Outdoor Creature.

"But that is not the question. Workers' lives are shortened and employers are coming to know there is a marked loss of efficiency from workers breathing impure air."

The nation's foremost scientists this week attending the American Association for the Advancement of Science pleaded in numerous papers for pure air for workers.

Dr. Robert Hessler declared a close relation exists between the breathing of foul air and race suicide.

"Man is primarily an outdoor creature," said Hessler. "He has attempted to adapt himself to an indoor, artificial atmosphere, a process accompanied by all sorts of ills."

#### BRONX MASTER PLUMBERS' ANNUAL BALL.

The Bronx branch of the New York Master Plumbers' Association will hold its annual ball in New McKinley Square Casino, at 169th street and Boston road, New York City, on Friday evening, January 31. The committee in charge of the entertainment is composed as follows: John J. Foley, chairman; William J. Flynn, V. F. Bernesser, S. J. Welch, David Durie, Jr., and Thomas F. Moffett.

#### ALBANY MASTER PLUMBERS' ANNUAL BANQUET.

The Master Plumbers' Association, of Albany, N. Y., will hold its annual banquet at the Ten Eyck in that city on Thursday evening, January 23. The guest of honor will be Frank B. Lasette, of New York City, president of the New York State Association of Master Plumbers. The reception will begin at 7:30 and the dinner will be served at 8 o'clock. An exceedingly interesting program is now being prepared, and applications for seats at the banquet table should be forwarded promptly to the chairman of the committee on arrangements, Frank F. Schimpf, 68 Washington avenue, Albany. The assessment has been fixed at \$6.00, which should accompany each reservation. The committee in charge of the interesting event consists of the following gentlemen: Frank F. Schimpf, chairman; James H. Doody, secretary; James J. Gorman, Charles E. Walsh, T. E. Kerwin, William Brannion, Joseph Noord, Thomas F. Nolan, J. Kieley and William Miller.



# Questions and Answers

## A QUESTION ABOUT CIRCULATION.

Editor "Domestic Engineering":—Will you kindly settle an argument that I have had with another plumber? I claim that the job of circulation as shown in my sketch will work satisfactorily, and the other man says it will not circulate. Please settle this for us and if my plan is wrong, please show how the work ought to be done.

Journeyman.

Des Moines, Ia.

"Journeyman" is far from being right in this dispute, and we would advise him to brush up a bit on the subject of circulation. Probably there is no part of the plumber's business that gives him any greater trouble than this subject of circulation, and the best of them are sometimes at sea concerning some of the problems that arise.

The job shown in Fig. 1 will no doubt deliver hot water at the fixtures, but no better than if the so-called circulation pipe had not been put in. The path which is provided for the hot water is one which it will not freely take, as the hot water must at once drop after leaving the boiler, while its natural tendency is to rise.

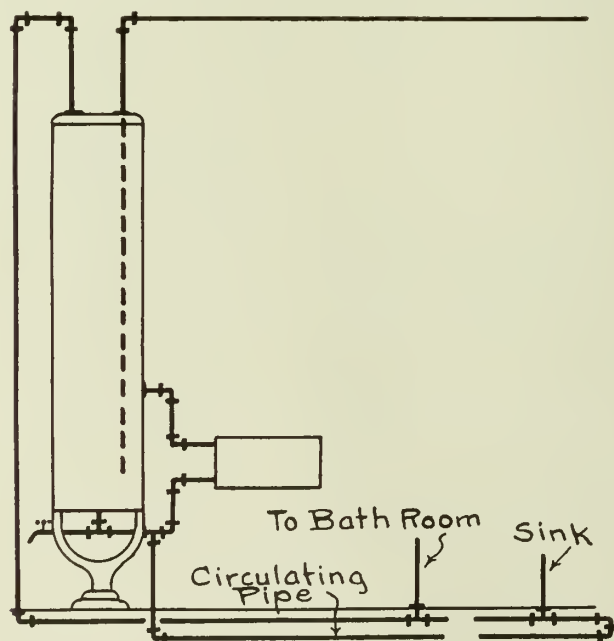


Fig. 1.

The tendency to fall does not appear until the hot water has begun to cool. In order to circulate, the path provided for the hot water must be a natural one, and as the path in Fig. 1 is not a natural one, there can be no circulation.

When we speak of circulation, we mean the constant passage of hot water through the hot water piping from the boiler, and back again through the return or circulating pipe.

In Fig. 2 the proper connections for making this job a circulating job are shown, and it will be observed that both flow and return pipes are carried overhead, although if desirable, the return or circulating pipe could be

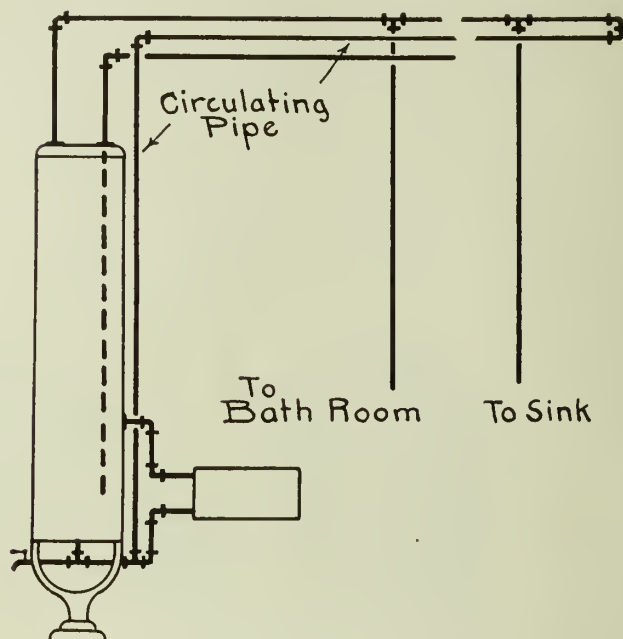


Fig. 2.

dropped down to the floor at the end of the run, and carried back to the boiler either above or below the floor.

## CONTINUOUS VENTING—WHAT IT IS.

Editor, "Domestic Engineering":—We often hear nowadays about continuous venting, and that it is much better than the common method of venting.

Please publish something, with illustrations, to show just what continuous venting is, and why it is the best form of venting.

New Orleans, La.

Subscriber.

The question that "Subscriber" brings up is certainly not only an important one, but one on which much could be written in answering it. We have not space in which to go exhaustively into the subject, but will give briefly the important features.

In the first place, every plumber knows that probably a great majority of the openings of vent pipes into traps become almost if not entirely plugged up with grease, lint, etc., after having been in use for a time. In this condition, it would be just as well if the trap were without any vent whatever. One of the great features of the continuous vent is that in its use the plugging of the vent opening is practically overcome. This fact and others, will be noted by reference to Fig. 1, in which A shows a trap vented in the usual manner, by a crown vent, while B shows the same work installed with a continuous vent.

Generally speaking, the continuous vent is obtained by the use of a trap having an outlet horizontal, or nearly so, this outlet connecting into a waste fitting, out of the top opening of which the vent pipe is taken. It will be seen that B answers these requirements. In B the vent connection is so located, and so far from the upheaval

of the contents of the trap, that grease, lint, etc., will not slop up into the opening of the vent pipe and cause the stoppage of the opening, as will almost always result when

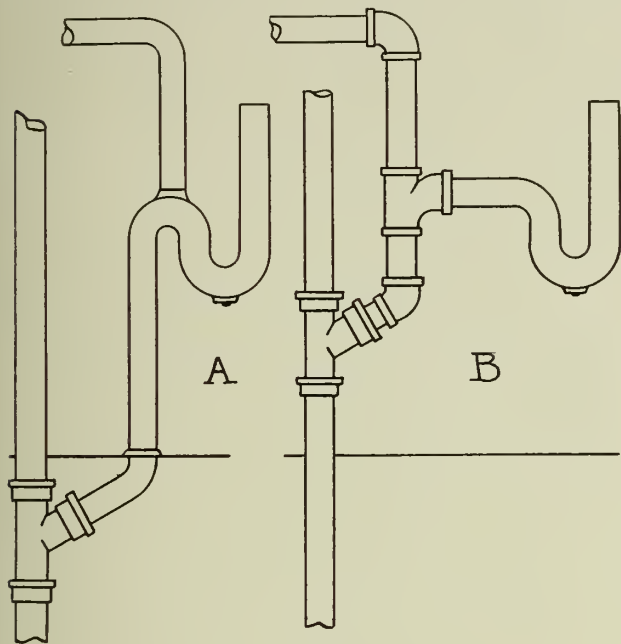


Fig. 1.

the vent connection is made as in A. We believe that the prevention of vent stoppage is the greatest improvement

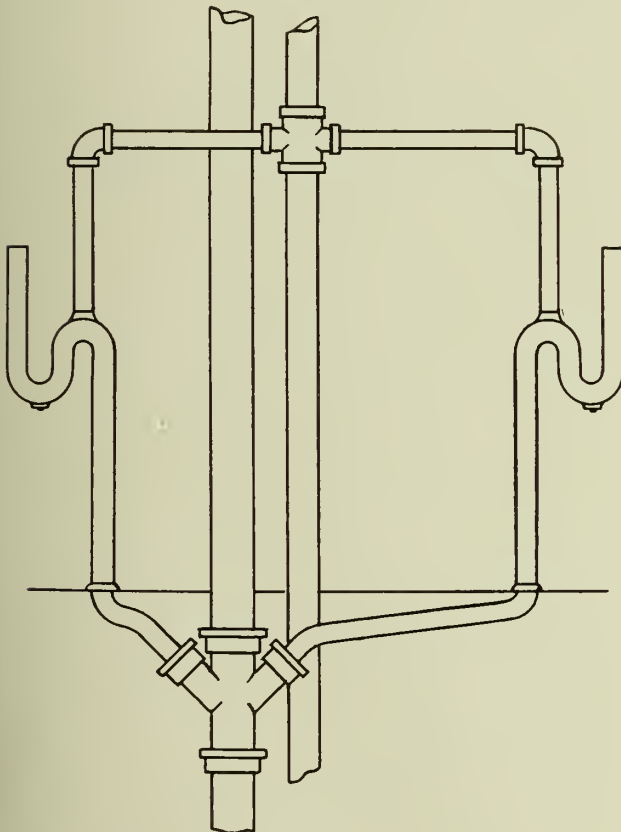


Fig. 2.

that the continuous vent is responsible for, although there are other good things about it.

The vent connection in continuous venting is so much further from the trap seal than in crown venting that a

much lower rate of evaporation takes place than when common venting is used.

A third advantage in the use of crown venting is that it very often saves expense in both labor and material.

This latter advantage is very clearly shown in a com-

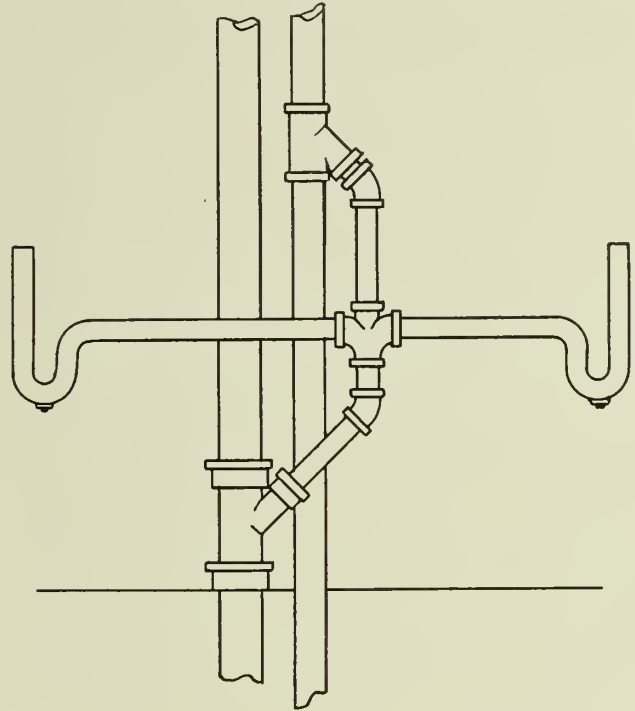


Fig. 3.

parison of the labor and material involved in Fig. 2 and Fig. 3. The latter, with its continuous venting, is certainly less expensive to install than the former.

#### WHITE PLAINS MASTER PLUMBERS' ANNUAL MEETING.

The Master Plumbers' Association of White Plains, N. Y., at its recent annual meeting elected the following officers for the ensuing year: President, William Hibbins; vice-president, James C. Farrell; secretary, R. J. Birch; financial secretary, George Geibel; treasurer, R. J. Ellis.

#### ANNUAL MEETING AND ELECTION OF OFFICERS.

The Master Plumbers' Association of Staten Island, N. Y., held its annual meeting last week and elected the following officers for the ensuing year: President, Charles R. Heap; vice-president, W. H. Sullivan; recording secretary, William J. Barry; treasurer, Charles A. Schleinger; financial secretary, George North; marshal, A. Levy; sergeant-at-arms, Frederick A. Parker; trustees, John Missall, Harry A. Brower and T. W. Hawkins.

#### The Rule of Three.

"I say, old man, can you tell me what is meant by the Rule of Three? My girl asked me about it last night. Never heard of it before."

"Well," said the man at the next desk, with a frayed collar, and an incipient bald spot on his head, "if you can wait till you're married, and live with your wife, her ancient maiden sister and their mother, you will know the Rule of Three all right."



# Through the Safety Valve



By H. E. S.

A weary postman pours forth a doleful lamentation as he reaches this desk with his burden of first-class matter pertaining to that cover design on the New Year's number. Plucking listlessly at random from this forty-seventh batch of unearned increment we are accosted thus,—

Dear Safety Valve:—

If you had to change, why green? My wife has been using your covers on the pantry shelves and the golden hue has created a warm air of affluence. We were just beginning to be quite proud of our orangery when that green thing came along. Now the cream is sour every morning.

Yours biliously,

S. P.

and thus,—

Dear Byes:—

Shure, it is with great pleasure I'm sendin' ye the price of a subscription to yer fine magazine. Count on me so long as yez spread on the beautiful emerald, but it's me money back if yez gets into that Orangeman's coat again.

Erin go bragh and the same to you,

P. M.

(With chastened heart we've sent Pat's money back.)

and thus,—

(Ten like this.)

Dear Solace:—

Several of us subscribers have had an argument as to which one of your staff posed for the figure on the cover of the New Year's number. We are agreed that the Alpine affair which he carries is probably thrown in to signify that the original is on the staff, but we can't agree as to which one it is. The writer for one is sure it isn't the main-spring, for as he remembers him he is a long loose-jointed guy with whiskers. One of the others says he knows your editor and it can't be him because he's lost most of his hair and wears steel-bowed spectacles, and another of us who thinks he remembers meeting old Queries and Answers and the simple-minded Spectator at a banquet once, says it isn't either of them, because one is too thin and poorly for a picture and the other is too sleek and well-fed looking to be posing as a creature that lives loose in the open air. Barring one or two others that we know could prove an alibi we don't think there are many on the staff that we're not wise to. Come now, 'fess up like a good fellow and help us to settle this argument.

Yours,

G. H.

O. B.

P. T.

All these require immediate answers. We pause to dash off a reply in the words of a Chicago jurist who is threatened by the limelight in a controversy that promises to become famous,—“For heaven's sake don't pass the buck up to me.”

And now for all the others at one fell sweep. The cover hue, kind critics, was determined somewhat fortuitously, as it were. We, that is, all of us whose efforts combine to get out the leading Plumbing and Heating magazine, had a long conference on this subject. Each of the cardinal colors had a staunch advocate and so many of these revealed traits of Pennsylvania Dutch ancestry that we were in danger of never coming to an agreement, when somebody announced that since white had been scientifically declared to be no color at all, there were just two colors appropriate for holiday use, and that those were green and red. That narrowed the

issue and on a ballot the Greens got it. We are sorry that S. P. is having trouble with the cream, but unless we receive other similar complaints we shall continue to feel that the green color was one of the triumphs of our publishing year.

As to the symbolism of the figure we cannot do better—or worse—than to quote from the artist. To the best of our recollection he said it was Alcibiades in quest of the Cornucopia. As to the model we are not sure. We know a certain plumbing contractor, a great friend of the artist who cuts a pretty tolerable figure even in his shirt-sleeves—but then, that doesn't prove anything. It's just a guess.

## JUST A FEW BOUQUETS.

**Bernard Gause, Vice President of the Illinois Master Plumbers' Association, Jacksonville, Ill.**—“Your Holiday Number was a splendid effort and shows that our trade press is making wonderful progress.”

**A. C. Eynon, Past President National Association of Master Plumbers, Canton, Ohio.**—“The New Year's Number of your estimable journal, 'Domestic Engineering,' came to hand January 1, 1913, right on the dot. In perusing its pages, one thought, and that of excellence, comes to my mind.

“The Editors, Advertisers, Contributors and Readers—especially the Associated Master Plumbers—to all of them there is undoubtedly a distinct and just pride in the attractive and mechanically perfect production of this special number.

“Permit me, please, to extend this compliment, for it is worthy of commendation.”

**George F. Reeke, President Wisconsin Master Plumbers' Association, Green Bay, Wis.**—“The article written by Elbert Hubbard impressed me to the extent that I wish to have it reproduced in all the leading dailies in the state of Wisconsin, and I am taking the liberty of enclosing you herewith a list of names and addresses of our members to whom you may mail a printer's copy, with the request that it is my desire that he use his personal prestige to have it printed under Editorial Communications.

“Efforts are to be made at the coming session of the Wisconsin Legislature to repeal the Plumbing Law of 1898 and in its stead pass an up-to-date State Plumbing Law. This editorial I know will assist largely in bringing the public's attention to the unsanitary condition of their respective communities.

“I will also advise the committee in charge of introducing the new law to request additional copies, so they can mail one to each Senator and Assemblyman in the state of Wisconsin.

**J. M. Robb, Chief Engineer, Moline Vacuum Vapor Heating Company, Moline, Ill.**—“We congratulate you on the success of your effort in getting out your New Year's Number. We consider it the best number of 'Domestic Engineering' that we have seen.”

## Different for One.

The fifth day drew to its close with the twelfth juryman still unconvinced. The court was impatient.

“Well, gentlemen,” said the court officer, entering the jury-room, “shall I, as usual, order twelve dinners?”

“Make it,” said the foreman, “eleven dinners and a bale of hay.”

# Revising Plumbing Ordinances of Cedar Rapids

The new ordinance, to take effect on or about February 1, 1913, will call for the examination of all masters and journeymen plumbers who have not served five years in their trade in the City of Cedar Rapids. The examining board will be composed of the plumbing inspector, chairman, one master and one journeyman, each of whom must have served as plumber for ten years.

The ordinance calls for anyone outside of the city who takes any contracts for plumbing, steam, hot water and sprinkling fitting in the City of Cedar Rapids, for a license of \$1.00 a day while he is installing the work; and also that he pass an examination under the examining board, showing that he can do the work to comply with the plumbing ordinance.

There is also in connection with the plumbing ordinance, an ordinance governing gas piping and gas fixtures. All gas piping is to be tested by the plumbing inspector with ten pounds of air or ten inches of mercury. All combination gas fixtures to be tested at two pounds of air or two pounds of mercury. The reason this ordinance is under the plumbing department is because a gas leak is as dangerous to health as sewer gas.

In connection with the plumbing ordinance, there is also an ordinance providing for the testing of gas meters. This may interest some of our readers, as it is a little unusual to have it placed in this department.

## Be It Ordained by the City Council of the City of Cedar Rapids, Iowa:

Section 1. That Section 3 of the Ordinance No. 954 of the Ordinances of the city of Cedar Rapids, Iowa, is amended to read as follows:

"That upon written application of any consumer of gas, within the said city of Cedar Rapids, to him, the said inspector or his duly authorized assistant shall inspect and test the correctness of any gas meter designated in said application and shall receive therefor a fee of 50 cents for the testing of each meter. In case the meter required to be tested shall be owned by a gas company and be in service, the said inspector shall upon receipt of such application cause the said meter to be disconnected and all openings properly plugged in the presence of the said inspector and immediately removed by him to the place provided for the making of such tests; and the said gas company owning said meter shall, in the presence of the said inspector, install another meter which shall be a meter which has been tested within thirty days by the city inspector and properly sealed by him, which said meter shall remain in the place and stead of the meter removed; the meter so removed to be tested by said inspector within three (3) days after such removal. At the time of removing said meter, the same shall be read and the record of the reading be made and preserved by the inspector. Such record shall also show the name of the consumer using the meter, the street and number where used, the number of the meter and the date of the test. In order that the said inspector shall at all times have on hand tested meters for installation where meters are removed under the provision of this Section, each gas company doing business in the city of Cedar Rapids shall maintain on hand and with the said inspector at all times, not less than five (5) meters with all openings properly plugged, for which the said inspector shall give his receipt to the said gas company, giving the number and description of said meters and the said city of Cedar Rapids shall be responsible to the said company for the due care of and preservation of the said meters. When any of the said five (5) meters so kept on deposit at the office of the city gas inspector in the city of Cedar Rapids, shall be removed by the said gas company, or its representatives for any purpose, a proper receipt shall be given to the said inspector by the said company, giving the number and description of said meters so removed."

Sec. 2. Section 4 of the said ordinance is amended to read as follows:

"At the time of the removal of said meter, the inspector shall furnish to the gas company owning said meter, a receipt for the same which shall show the day and hour of the day of removal of said meter for the purpose of testing and the number and size of the meter, the maker's name, and the number of the property badge of the owner thereof. After said meter shall have been kept in the place provided for such testing for a period of at least twenty-four (24) hours, in order that the temperature of the meter, the prover, the water, and other apparatus used in the making of such test, shall be the same, the said meter shall be tested. If any gas meter, on being thus tested, shall be found to register more than two (2) per cent fast, the fee for such test shall be paid to the consumer by the gas company, and the inspector or person making such test shall mark said meter fast, and said company shall not allow the same to be used again until the defect is remedied, and the meter is certified as correct by the plumbing inspector. Any meter which shall register not more than two (2) per cent from the true standard of measuring gas, shall be considered as correct, and shall be sealed by the inspector as correct."

Sec. 3. Section 6 of said Ordinance is amended to read as follows:

"If any meter is found by the inspector to be fast, it shall be assumed to have been fast to the same extent for six months preceding the date of the test and the gas company shall refund the amount of excess charges of gas registered by said meter on account of the same being more than two (2) per cent fast, to the consumer, together with the sum of fifty (50) cents to cover the testing charge paid by said consumer to the city, subject, however, to the exception that in the event that the said meter shall not have been installed for a term of six months at the time of said test, then said refund shall be in the amount of excess charges only for the time during which said meter has actually been installed."

In the interests of sanitation the city of Berlin now operates a municipal crematorium. A Chicago sanitary engineer who has recently returned from Germany, says that in the future any one dying in Berlin may have his body cremated if he so desires. "In spite of the bitter opposition of the church the crematorium has been built and turned over to the authorities," continues this engineer. "Hitherto the bodies of those to be cremated had to be sent to Gotha or to Hamburg, and there were many difficulties to be overcome before the process could be applied to the remains of a native-born Prussian. Occasionally a well-to-do American or other foreigner died in Berlin leaving instructions that his or her body was to be incinerated. The instructions were usually carried out, but at great trouble and expense."

Columbus, O.—Preparations are being made by the County Commissioners to furnish the Ralston Steel Car Co., of East Columbus, with a sewage system. The system will cover parts of Mifflin, Marion and Truro townships. A sewage disposal plant will be constructed near Alum Creek. The cost of the system will be about \$20,000. The building committee of the Board of Education will settle the question of the Crestview school building soon. The board has decided to install a steam heating plant which will be an innovation in Columbus as none of the schools have been equipped with that sort of a heating plant.

Chicago, Ill.—Lewis & Kitchen Co., of this city, has secured the contract for the installation of heating and ventilating systems in the new high school building at Herkimer, N. Y. Consideration is \$6,881.



# Supply Houses Praise Parcels Post

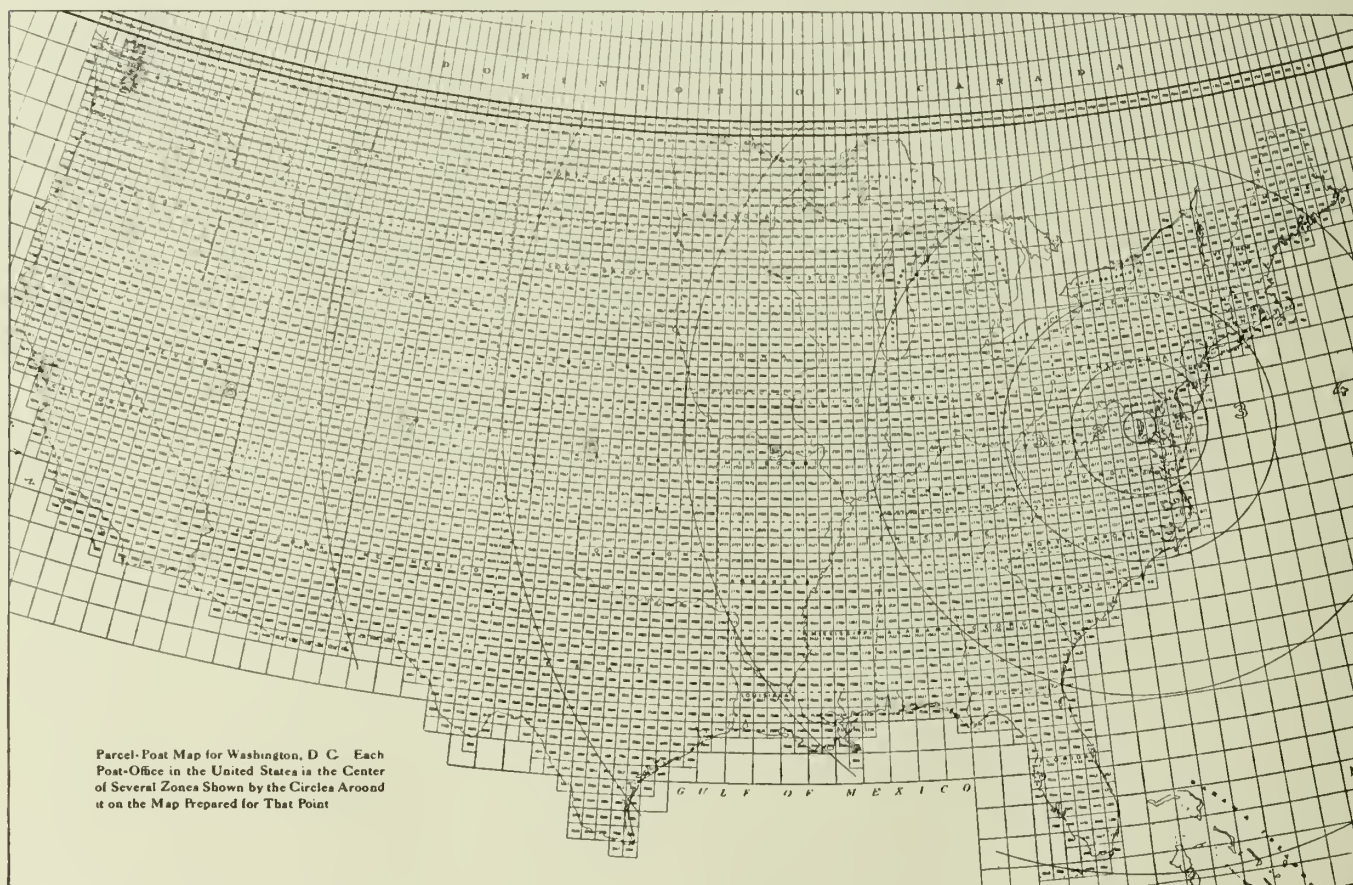
"Uncle Sam's Express" is Now Being Given Its Initial Tryout.  
Many Kinks Yet to Be Straightened Out to Make It Ideal

**M**ANUFACTURERS of plumbing goods are jubilant over the maiden success of the parcels post system which went into effect the other week. Some of the advantages of the system which one supply man referred to as "Uncle Sam's Express," are cheaper rates, greater speed in delivery, and reliability—as for instance the government will exercise scrupulous care to prevent breakage and damage to goods while en route to the consignee.

One big supply man with business interests in various parts of the Middle West remarked the other day that it

John Noone, manager of the Chicago branch of the Standard Sanitary Manufacturing Company, emphasized his endorsement of the parcels post by declaring it to be a "corking good plan, and quite the thing that the supply houses have been in need of."

"We can send a great many specialties by this post," said Mr. Noone recently. "All kinds of brass goods, samples, repair parts, etc., and the beauty of it is that we can place absolute confidence in the quickness of the parcels post. If we dispatch a box of brass fittings to Aurora, Illinois, in the afternoon, we can depend upon



was his positive belief that the Federal government would ultimately take over the entire business of the express companies.

"The express companies should receive a fair price for their business and equipment," said he. "Their entire plant should be transferred to government control.

"The establishment of the parcels post is bound to result in a downward revision of express rates by the private companies. The express companies have Federal and state taxes to pay, while the postoffice department in its operation of the parcels post will not be taxed and will not be required to earn money for the payment of dividends. It will be operated at cost. The new system has been introduced for the direct benefit and convenience of the people, and I am sure it will be conducted in their interests, first and foremost."

its safe arrival in that city early the next morning, say about 7:30 a. m. And then we need have no fears about getting complaints from our customers that goods were received in a damaged or partially damaged state, as was frequently the case when careless express men handled the stuff."

At the plumbing supply house of Weil Bros. in Chicago, it was said that they have found the parcels post a triumphant success. One of the managers said: "We had occasion to send a box of air vents for radiators to Evanston, Illinois, a few days ago. We took the vents to the postoffice at 9 a. m. and at 4:30 p. m. the package was delivered in Evanston. We have sent out small items of plumbing supplies to suburban towns and in every instance we have had the most satisfactory service. What particularly characterizes the system is speed and relia-



bility. The cost of sending things is only a little cheaper than by express, but the best part of it is that we know that Uncle Sam is more dependable in handling our goods than are private companies."

Reports made on January 3d in the Chicago postoffice show that \$47,000 worth of parcels post stamps were sold and 46,720 packages mailed. Every parcels post stamp of the 2-cent denomination in the city was sold on the first day of the postal innovation. The lobbies of the retail and wholesale sections of the postoffice are so crowded daily that a corps of new clerks will be put on to accommodate those waiting. Despite the rush of business and the varied assortment of articles, from coal shovels to dressed jackrabbits, the clerks and officials are taking time to explain to patrons what articles might be sent and how. One man found whiskey was barred by the government when he presented a carefully wrapped quart bottle which he desired to send to a bosom friend in Kansas.

The cost of sending a parcel depends upon two factors—the weight and the distance. Each postoffice in the United States is the center of a series of circles or zones; the first zone includes territory within a radius of 50 miles; the second zone, 150; the third, 300; the fourth, 600; the fifth, 1,000; the sixth, 1,400; the seventh, 1,800; and the eighth, all territory more than 1,800 miles from the postoffice. Up to four ounces in weight a flat rate of one cent an ounce or fraction thereof is charged, regardless of distance. Parcels weighing more than four

Table of Parcel Post Rates.

WEIGHT	FIRST ZONE		SECOND-ZONE RATE	THIRD-ZONE RATE	FOURTH-ZONE RATE	FIFTH-ZONE RATE	SIXTH-ZONE RATE	SEVENTH-ZONE RATE	EIGHTH-ZONE RATE
	LOCAL RATE	ZONE RATE							
1 pound .	\$0.05	\$0.05	\$0.06	\$0.07	\$0.08	\$0.09	\$0.10	\$0.11	\$0.12
2 pounds .	.06	.08	.10	.12	.14	.16	.19	.21	.24
3 pounds .	.07	.11	.14	.17	.20	.23	.28	.31	.36
4 pounds .	.08	.14	.18	.22	.26	.30	.37	.41	.48
5 pounds .	.09	.17	.22	.27	.32	.37	.46	.51	.60
6 pounds .	.10	.20	.26	.32	.38	.44	.55	.61	.72
7 pounds .	.11	.23	.30	.37	.44	.51	.64	.71	.84
8 pounds .	.12	.26	.34	.42	.50	.58	.73	.81	.96
9 pounds .	.13	.29	.38	.47	.56	.65	.82	.91	1.08
10 pounds .	.14	.32	.42	.52	.62	.72	.91	1.01	1.20
11 pounds .	.15	.35	.46	.57	.68	.79	1.00	1.11	1.32

ounces and up to one pound must pay the pound rate for the distance. The table of rates we show herewith will give you any desired information regarding rates in different zones. It is well to bear in mind that parcels within the weight limit must not exceed seventy-two inches in combined length and girth, and in measuring the length, the greatest distance between the two ends of the parcel must be taken, while the girth is the actual measurement by a tape encircling the parcel at its thickest part. In other words, you measure the length of your parcel, then the girth; add the two together, and if the total is six feet or less it comes within the regulation.

A suggestion for the improvement of the parcels post system was offered by Mr. M. T. Whitney, Chicago manager of the H. Mueller Manufacturing Co. He said that while the system was "fine and dandy," nevertheless he noticed a bit of inconvenience in the fact that packages have to be taken by his men to the postoffice to be despatched, whereas when sent by express, the company's wagon always called at the office of the firm for the packages.

"It strikes me that the government could in the near future introduce some scheme of picking up packages by wagon the same as the express firms do. It would

accommodate business houses to a considerable extent. Still at the same time, I am not making any big kick. We can use the parcels post at cheaper rates than the express, so at that rate we can afford to take the time to take our stuff to the postoffice. I think that the parcels post is one of the grandest plans Uncle Sam ever put into operation for the benefit of the people. The plumbing supply companies have certainly reason to rejoice over it. For rapidity of delivery, safety and comparative cheapness, the government has the private companies 'skinned to a frazzle.'"

Oliver D. Peck of the Federal-Huber Company, pointed to some half dozen parcels the other day, that were going out by "Uncle Sam's Express." "Finest thing the government ever put over," said Mr. Peck. "Those packages represent brass goods, faucets, odd tools, and portable plumbing goods. We are sending them up into Wisconsin, and you can bet your sweet life that they will arrive on time and in good condition. In the past we have had more or less trouble with the express men over delayed goods, smashed and damaged goods while enroute. All this I am safe in saying will be almost unknown under the government's care."

The first package received by "Domestic Engineering" by parcels post was a package of advertising cuts from the J. M. Kohler Sons Company of Sheboygan, Wis. The package came through promptly and in A-1 condition.

Uncle Sam as an expressman, however, is finding his troubles. The fact that much of the matter, especially heavier packages that might save considerable money to the senders by being sent by Parcels Post, is refused by the government if it contains writing, still makes business of this nature good for the express companies. The refusal of the Post Office to accept small minimum packages as fourth class matter as of old with regular stamps, makes it necessary for the senders to carry much of this matter to the nearest Post Office, whereas before they could stamp such packages and drop them in the first mail box or hand them to a carrier. These objections will no doubt be removed in time, but they are now a detriment to the service and in some cases make it much more difficult to handle business under the Parcels Post plan than formerly.

The trying out of this system, however, is a step in the right direction and there will no doubt be good results from the experiment as the Post Office Department becomes accustomed to it.

#### WISCONSIN ASSOCIATION NEXT WEEK WILL HAVE INTERESTING PROGRAM.

One of the features of the convention of the Wisconsin Master Plumbers' Association at Milwaukee Wednesday and Thursday of next week is to be a talk by E. V. Kellogg, president of the Kellogg-Mackay Co., of Chicago, on the best methods of doing business and how the master plumber is being looked upon by those outside his own business. This will undoubtedly be a very interesting talk and is scheduled for the Wednesday morning session. William Decker, president of the Grand Rapids, Mich., Association, will also be a speaker and will talk on "Loyalty to the Association."

The session on Wednesday evening will be an open one, there being no special entertainment provided at that time, but on Thursday evening the entertainment committee has prepared a smoker at the Elks Club, which will be one long remembered by those in attendance.

The convention is to be held at the Elks Club, 450 Jefferson street, Milwaukee, Wis., and is to occupy next Wednesday and Thursday, January 15th and 16th.



# Differing Answers to "Middle West" Plumber

One Suggests the Abolition of the "Lien Law" as Protecting the Jobber; the Other Suggests Patronizing the Local Supply House

## From an Iowa Jobber:

I think "Middle West Plumber" answers his own question when he states that the supply house happened to be the one with which he had done the least business, and when he states that the plumber who got the contract away from him with the aid of the supply house was not a man who could have secured credit away from home. Reading between the lines it looks as if the larger plumbers who have credit used their local supply houses for their pick-up orders and sent their best and largest orders away from town. This forces the local jobber to cultivate the basement plumber for the bulk of his local trade.

Suppose the "Middle West Plumber" and all his competitors who have an established credit should buy all their goods from their local jobbers. The probabilities are then that the local jobbers would be glad to confine their sales to the shops that had good ratings. Naturally the jobber at a distance could not carry the basement plumber who had no rating. Would not this then make the things the "Middle West Plumber" complains of impossible?

The local jobber can buy his goods cheaper than the largest contractor and being on the ground he can always take up some good workman without a rating and back him for the best jobs in the community. This being the case is it not showing good horse sense for the local plumbers to be friendly with their local jobber and work in co-operation with him rather than to give him the pick-ups that are needed in a hurry and then force him to go to the basement plumber for the bulk of his business?

## From a Minnesota Plumber:

In a recent issue of "Domestic Engineering," a Middle West Master Plumber lays bare a "job" that was recently pulled off in which he assumed the role of the "goat." It is a part which we master plumbers have had to assume so many times that some of us are becoming very familiar with the character; and some of us feel too that it is high time that some one else did the honors.

It is my opinion that there is only one cure for the evil mentioned and that is a radical change in our present lien laws. We must deprive the jobber and material man of his right to a lien. Let the mechanic and the man actually doing the work retain this right, but let it stop right there. The result would be that the jobber would be forced to come out into the open, he would either be an open and above-board competitor or he would be a wholesaler in all that the word implies. He would take his stand among the other wholesalers, the grocer, the dry goods, the hardware, and numerous others, who confine their sales to the legitimate retail trade and look to these retailers for their money. They have no lien law to protect them. They have to watch their customers and sell to them in such quantities as will insure their getting paid for their goods without the necessity of having to follow up every sale and go to the third party for their money.

When we look at the immense buildings which concerns of this character occupy and own in their own names; when we consider the wealth and the standing of

the men who are at the head of these concerns; when we consider the vast amount of territory which they cover; and when we are reliably informed as to the remarkably small losses in their business due to unwise credit and failures of retailers, is it any wonder that we have to scratch our heads and endeavor to find some excuse that will justify the jobbers in the plumbing and heating business for their continual selling to wild cat concerns to the serious detriment of the reliable, legitimate master plumber and fitter? Their sole salvation is their right to a lien. It matters little with them as to whether or not the ultimate consumer has already paid for the goods installed in his home, the fact remains that they have not been paid, and they insist upon making the poor, unfortunate owner pay twice for the goods instead of getting their money from their real customer, the Good-for-nothing-irresponsible-master-plumber-in-name-only-outlet-for-the-jobber.

A few incidents: A few months ago, we figured on the installation of two heating plants in a building owned by a widow, but our price (at that time) was too high by some thirty dollars. The "other fellow" installed the plants, the widow paid him promptly and in full, and sixty days later she was greeted with the gladsome information that the concern which had furnished the boilers and the radiator had just filed a lien on her property for two hundred and forty dollars. She wept. She saw her lawyer. He advised her. She paid him for the advice. She tried to get the heating man to square the account with the jobber. She might just as well have tried to stop a dog fight with a box of talcum powder. Finally, she paid the bill and the lien was removed. At this stage of this particular problem in arithmetic, our bid is at least two hundred and ten dollars lower than the "other fellow's"; but nevertheless the profit on the job will not buy any Christmas cards for Yours Truly.

Another one: A man employed at hard labor in one of the large industrial plants of this city had a home erected for himself. He had been saving for years and it took all that he had to pay the bills. He moved into his new home and soon after the liens began to come, first for one thing and then for another; the lumber, the hardware, the plastering, the inside finish, everything in and about the house except the plumbing and heating (which by good fortune he had awarded to a reliable master); it was a new and unlooked for experience for him. He rushed out to find his carpenter contractor (who had been in charge of the building) and found to his sorrow that between two days this gentleman had left for the balmy South, leaving a number of good men and true in the lurch.

And again: A non-resident of this city had a flat building erected. He paid the bills, in fact he boasted to me that this had been the cheapest building that he had ever erected. And then the liens came in. After they had passed the two thousand dollar mark, and he had found that the contractor had left for the Golden West, he came to the conclusion that his boasting had been just a little bit too previous.

I might go on and give you incident after incident, but it is hardly necessary. It is a condition which confronts us each and every day. We all know fellows who have

been "stung." The list is a long one, and tomorrow there will be a few more names added to it; and tomorrow is not the end of it by any means unless somebody gets busy and hands the lien law a solar plexus.

The lien law is all right in so far as the mechanic on the job and the man actually having the contract for the work is concerned, but after it leaves that point and gives to the jobber and material man the right of lien, it takes in too much territory and is decidedly unfair, and the worst feature of the whole affair is that it hits the poor devil who can least afford to pay twice for what little he gets out of this world.

The jobber who wants to be square should line up with the legitimate master plumber and fitter and then shoulder to shoulder they should fight this proposition to a finish. A proper revision of the lien law would result in decreasing the quantity of masters and increasing the quality; it would drive some of our lien-right-jobbers out of business; and it would surely help, aid and assist the poor widow and the poor devil who is most likely to get caught in the meshes of the lien net.

So, here's to the legitimate jobber; long may he live. Here's to the legitimate master; long may he be protected; and here's to the finish of the lien law, the jobber that uses it as a creed, and the so-called master who sticks those who trust him and spoils the game for the rest of us.

W. W. Hughes.

Minneapolis, Minn.



### COPPER IS STRONGER.

Copper has recovered from the dullness experienced during the holiday season, and buying has started strong with the new year. The United States Steel Corporation inaugurated the new activity and started confidence in the market by its purchase, during the last week of the year, of 7,000,000 lbs. of electrolytic at prices ranging from 17.62½c to 17.75c. This came at one of the duller periods of the year and has encouraged other buying, thus putting the market on a firmer basis. Electrolytic is now selling in New York at 17.62½c.

### PIG IRON ACTIVE FOR THE NEW YEAR.

All parts of the country report increasing activity, though, with a few exceptions, it is for small quantities. The most notable order of the opening of the new year was that of the Youngstown Sheet and Tube Co., which purchased 50,000 tons of basic iron and 20,000 tons of Bessemer iron from the Ohio Iron and Steel Co. and 12,000 tons of Bessemer from the Andrews & Hitchcock Iron Co. This will call for shipment during the first half of 1913. The Bessemer was sold on a basis of \$17.25 at valley furnace. The general inquiry around the West is quiet, with sales of 1,000 and 2,000 tons being noted, these being bought mainly to cover late requirements of orders previously contracted. Prices in the East are steady, with the market quite active. Buffalo reports a large holiday season business and fairly heavy purchases are being made, with calls for immediate shipments. A large percentage of the tonnage taken was by one of the lead-

ing producers of the Lake district and who is quoting slightly under schedule prices, but in the main dealers are holding to current quotations. While orders in the East so far are for small quantities, it is the opinion that it tokens increasing activity for the new year. In New York orders are light, with foundries calling for shipments promptly to dates as contracted. The Southern market has recovered from its depression. Though scattering orders are being received, furnaces are sold well up into 1913.

Quotations are as follows:

Northern foundry No. 1, New York.....	\$18.75 to \$19.00
Northern foundry No. 2x, New York.....	18.25 to 18.75
Northern foundry No. 2, Chicago.....	18.00 to 18.25
Southern foundry No. 2, Cincinnati.....	17.25 to 17.75
Southern foundry No. 2, Birmingham....	14.00 to 14.50

### TIN.

The market for tin has been quiet during the week, with high prices prevailing. The scarcity has been relieved somewhat by importations from England arriving very early in the new year, and this has held the market on account of light buying. The price has stiffened to a marked degree, and 50.65c is being asked in New York.

### OLD METALS.

New York dealers' buying prices are:

Light copper .....	\$13.75 to 14.00
Strictly crucible copper .....	15.50 15.75
Uncrucible heavy copper .....	15.25 15.50
Uncrucible copper wire.....	15.25 15.50
No. 1 machine composition.....	12.75 13.00
No. 1 composition turnings.....	11.75 12.00
New brass clippings.....	10.25 10.50
No. 1 brass turnings.....	8.50 9.00
Cocks and faucets .....	10.75 11.00
Clean red carboxes .....	11.25 11.50
Light brass .....	7.87½ 8.00
Heavy yellow brass .....	9.12½ 9.25
Heavy lead .....	3.90 4.00
Tea lead .....	3.60 3.75
Scrap zinc .....	5.50 5.75
No. 1 pewter .....	34.00 35.00
No. 2 pewter .....	9.50 10.50
Close cut solder joints.....	9.00 9.25

### A NEW BOOK ON COST KEEPING.

F. S. Prior, whose book on "Office Methods for the Plumber" is well known to the trade, has recently issued another entitled "Cost Keeping for the Plumbing and Heating Contractor." A great many practical adaptations of business systems are covered in the pages of this book and diagrams showing cost sheets, time records, time tickets and accounting systems are fully entered into. A great deal of matter of interest to the practical man is also included. Those interested in the book may obtain further information by addressing "Domestic Engineering" or the author at Akron, Ohio.

### Why He Would Have One.

"Got a horse to sell, Bill?" asked a man of a horse trader.

"No," answered Bill.

"Do you know any one who has a horse to sell?"

"I think Joe Smith has one," answered Bill.

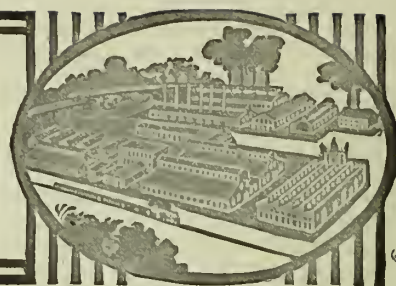
"Sure? How do you know?"

"Well," answered Bill. "I sold him one yesterday."





## News of Interest Among the Wholesalers and Manufacturers



### WILL MANUFACTURE PLUMBING SPECIALTIES.

The Single Faucet Co., of Chicago, has been incorporated with a capital of \$25,000, to manufacture plumbing specialties. The incorporators are: William J. Bergens, Frank W. Fullmer and Robert W. Daniels.

### WILL MANUFACTURE HEATING AND VENTILATING SPECIALTIES.

The Standard School Heater Co., of Chicago, Ill., has been incorporated with a capital of \$10,000 to manufacture heating and ventilating specialties. The incorporators are Schuyler C. Wilson, James K. Shearer, James E. Sellers, N. Jesse Bowman and C. A. Nixon.

### WEIL BROTHERS BUY ADDITIONAL FRONTAGE.

The estate of Adolph Arneld has sold to Weil Bros., the wholesale plumbing supply house, the property at 653 and 655 West Lake Street, Chicago, on the south side of the street, between Desplaines and Union Streets. The lot fronts 30 feet with a depth of 155, with old improvements of no value. The consideration was \$20,000 cash. The purchasers contemplate the erection of a six-story warehouse, to be used in connection with their present building, adjoining on the east.

### THE MOUAT-SQUIRES CO. OPENS OFFICE IN DETROIT.

The Mouat-Squires Co., of Cleveland, O., has recently opened an office at 307 Majestic Building, Detroit, Mich. A. O. McMahon, who has been identified with the heating business for twelve years, has charge of the office and will look after the company's business in Detroit and vicinity.

### STANDARD PUMP AND ENGINE CO. OPENS NEW OFFICE AND SHOWROOM.

Standard Pump & Engine Co., 520 Prospect avenue, N. W., Cleveland, O., is opening a new office and showroom at 1406 West Third street in that city, where the company will display its various types of pumps and water supply systems in operation. It will also display a line of lighting systems, gas fuel and refrigerating systems for rural homes. The main offices will be at the new address and the entire Prospect avenue plant will be turned over to the manufacturing end. The new office and showroom will be ready for business about February 1, 1913.

### PETITIONED INTO BANKRUPTCY.

A. D. Herschler, of Ashland, O., manufacturer of plumbing specialties, has been petitioned into bankruptcy by five of his creditors. His liabilities are reported to amount to about \$7,000.

### JOIN THE SALES FORCE OF THE BELER WATER HEATER CO.

The Beler Water Heater Co., of Pittsburgh, Pa., has appointed Lyman A. Irish general sales agent for Michigan, with headquarters at 20 East Woodbridge avenue, Detroit. The Beler Company has also appointed Harry F. Hicks representative, to cover West Virginia, Eastern Ohio, and portions of Western Pennsylvania. Both these gentlemen have been selling automatic water heaters for several years and are well equipped for these positions.

### THE RICHMOND RADIATOR CO. OPENS NEW OFFICES.

The Richmond Radiator Co. has opened new offices in the Longacre building, New York City, where it now occupies more than half of the entire eleventh floor, and it is also arranging a showroom in the Arcade on the main floor. Thousands of persons will notice this showroom every day, as it is located at the Times Square in the heart of New York City.

### FRED K. DIBLEY PRESENTED WITH LOVING CUP.

Mr. Fred K. Dibley, who for the past five years has been the Denver manager of the L. Wolff Mfg. Co. branch, was on the evening of last Friday, the third of January, the recipient of a host of good wishes and a beautiful loving cup from representatives of all of the jobbers of plumbing, heating and mining supplies in Colorado. The occasion was in the nature of a farewell to Mr. Dibley, who is leaving Denver to a promotion in the main house of the L. Wolff Mfg. Co. in Chicago. The many friends that Mr. Dibley has made during his stay in Denver, as well as his associates and acquaintances in the jobbing line, regret to see him leave and the token of their esteem came from the depths of their hearts.

### THE BOILER RADIATOR SALES CO. IN NEW QUARTERS.

The Boiler Radiator Sales Co., of Chicago, Hugh W. Smeal, president, has moved from 118 to 126 W. Kinzie Street. The new quarters are roomy and modern in every respect. They consist of three floors and the basement. Mr. Smeal became well known to the trade through his twenty-three years' connection with the John Davis Co. Since he started in the jobbing business for himself in 1910 he has made many new friends and reports a prosperous year just closed and a very promising one ahead.

**JOHN WEEKES & SON CO. ENLARGE QUARTERS.**

John Weekes & Son Co. of Watertown, N. Y., are preparing for a larger business the coming season from the Syracuse, N. Y., branch house. The building adjoining their present quarters on Southwest Street in Syracuse has been leased. This building is of three stories, 150 by 50 feet. This will give the company approximately 40,000 square feet of space including warehouse room in Syracuse.

Additions to the selling force of the Syracuse branch has also been made. J. G. Williams, for twelve years with the Pierce, Butler & Pierce Mfg. Co., Syracuse, will call on the city trade for the Weekes Co. A. J. Thompson, for many years identified with the trade at Alexandria Bay, N. Y., will cover the out-lying territory. C. B. Porter is sales manager. The Weekes Co. has also recently purchased two new Gramm Motor Trucks to facilitate the handling of deliveries from the Watertown and the Syracuse houses.

**THE MEMBERS OF THE VICTOR BRASS MFG. CO. OF CLEVELAND.**

Last week mention was made of the organization of the Victor Brass Mfg. Co. of Cleveland, Ohio. It is our pleasure to present herewith a more personal view of



Members of Victor Brass Mfg. Co., Cleveland.

the personnel of this new and hustling organization. The smiling gentleman at the left is the president, Lou Brennan; at the right is Ted Moran, vice president; above is Jos. H. Lyons, general manager, and below is Nick McGrath, secretary and treasurer.

**NEW CATALOG OF NATIONAL SANITARY MFG. CO.**

The National Sanitary Mfg. Co., Salem, O., is issuing a new catalog on their special bathtubs and sink. This catalog shows the complete line of newly designed tubs and sinks that have recently been put on the market. The catalog will be off the press February 1st and ready for distribution. Copies will be sent to those who will mention "Domestic Engineering" in writing.

Hoboken, N. J.—Manahan Bros. Heating Company, of this city, has been incorporated with a capital of \$50,000 to conduct a plumbing and heating business. The incorporators are K. L. Fraiser, J. F. Sutton and T. Harry Rowland.



Edward J. Hinrichs, manager of the plumbing supply department of the Grand Rapids Supply Co., Grand Rapids, Mich., has resigned from this position and has purchased an interest in the Michigan Plumbing and Supply Co., at Detroit, Mich., and will hereafter make his home in the latter city.

Frank O'Dell, who for several years has called on the country trade for the U. S. Radiator Corporation throughout western Iowa and Nebraska, has accepted a position with Orr and Graves, Sioux City, Iowa. Mr. O'Dell's many friends wish him success in his new work.

C. Burchfield Kennedy, of the Bartlett-Kennedy Co., heating and ventilating engineers, of Pittsburg, Pa., spent several days with the Chicago trade last week. Mr. Kennedy stated that the past year was an exceedingly active one with the heating trade in his city.

John E. Fitzgerald, who was formerly secretary of the Duquesne Sanitary Co., of Pittsburgh, Pa., will be the manager of the new Erie, Pa., branch of the Standard Manufacturing Co. This concern has purchased adjoining lots, measuring 41x140 in West Eleventh Street, Erie, and will at once erect a modern four-story warehouse for its own use. A complete line of plumbing, heating and mill supplies will be carried at this branch.

F. R. Bishop has resigned as manager of the Omaha branch of the United States Radiator Corporation and accepted a position with the Lord & Burnham Co., of Irvington, N. Y., as its representative in the Middle West, with headquarters in the Rookery building, Chicago. Mr. Bishop was connected with the United States Heater Co. from 1896 until the formation of the United States Radiator Corporation, two years ago, and he was manager for these two concerns the last four years. W. E. Hyland has been appointed as his successor as manager of the Omaha branch.

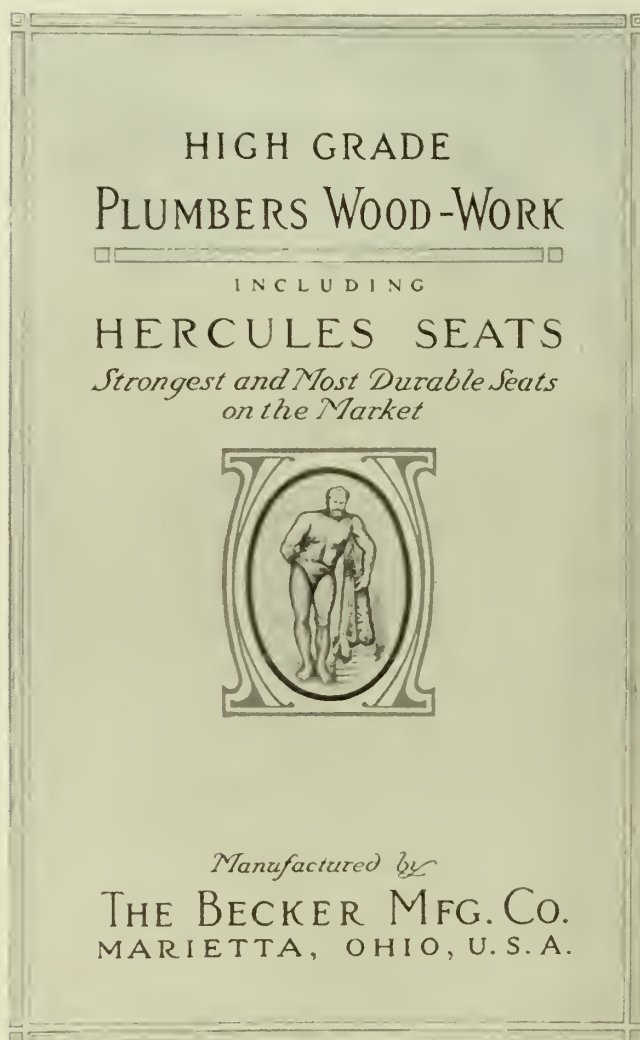
George H. Van Arnham, president and treasurer of the Van Arnham Manufacturing Co., Fort Wayne, Ind., entertained one night last week at his home, 1128 West Wayne street, in that city, with a six-course dinner in honor of the salesmen and foremen of the company, and on that occasion was made the recipient of a beautiful loving cup bearing the inscription: "Presented to George H. Van Arnham, 1913, by the foremen and sales force of the Van Arnham Manufacturing Company." It has been Mr. Van Arnham's custom for a number of years past to entertain the heads of the various departments of his company each year, at this season.

**RECENT CATALOGUE OF THE BECKER MFG. CO.**

The Becker Mfg. Co., of Marietta, Ohio, formerly The Becker Mill Co., manufacturers of plumbers' woodwork, and which they call the "Quality Line," recently issued a



new and very finely illustrated catalogue with an embossed cover and two colors on highly finished enamel paper within, illustrating their complete line of "Hercules Seats," and various designs in tanks. The entire arrangement of the book is such as to give the trade a very comprehensive idea of the entire line and the illustrations are especially well made to show exactly what the customer may expect to get.



Title Page of Becker Mfg. Co. Catalog.

The illustration herewith shows the title page of this catalogue and copies will be mailed to those of the trade who are interested and who will address the manufacturer, mentioning "Domestic Engineering."

#### SOME HOLIDAY GREETINGS.

One of the attractive calendars received by us was from J. C. Eichman Mfg. Co., Bush and Iconoco streets, Baltimore, Md. The art design is a fit embellishment to the advertising of the Clover Leaf Line.

Warren Webster & Company, of Camden, New Jersey, send out a beautifully engraved New Year's greeting as a memento of their twenty-fifth anniversary.

The American District Steam Co., North Tonawanda, N. Y., have circulated a most beautiful reproduction of a painting of Pocohontas brought captive to Jamestown, as a large business office wall calendar. The entire design and execution is in keeping with the quality mark set by this firm.

A calendar issued by G. C. De Woody, of Grafton, W. Va., shows a large outdoor display of his goods, particularly his line of gas goods and supplies.

Clarence W. Lyman, advertising manager of the International Heater Co., Utica, N. Y., sends best wishes on an especially attractive holiday card carrying expressions of good will from his company.

Holiday greetings in a neat announcement came from Jos. Netzer, Laredo, Texas.

The Honeywell Heating Specialty Co., Wabash, Ind., got out one of the neatest and most attractive New Year's greeting cards that it has been our pleasure to see in many a day. It is a handsomely engraved card mounted within a folder.

The pink lady calendar sent out by the Louis Lipp Co., of Cincinnati, Ohio, is one of the most attractive seen this season. It makes an excellent wall decoration and the calendar itself is of sufficient size to be easily seen.

Harry Verbeek, manufacturer's agent, with offices in the City Hall Square building, Chicago, sent out some most practical memorandum books, with adjustable pads. This should be of lasting benefit to the recipients as well as the donor.

Large, clear figures, a smaller calendar on each sheet giving the preceding and following months, and an attractive advertising display, characterize the 19x28 inch twelve sheet calendar gotten out by the Van Arnham Mfg. Co., manufacturers of closet combinations, Fort Wayne, Ind. The practical utility of this calendar is to be heartily commended—and that is what the calendar is for, anyway.

The plumbers are not allowing the opportunities for calendar advertising to be monopolized by the banks and other business houses. Condon & Patton, with shops at Haddon Heights and Laurel Springs, N. J., issued to their patrons and prospective customers a very sensible store and office calendar with large, easily read figures in the calendar portion. The calendar to remain in use must have figures easily read at some distance and for a business house this one should remain in use a long time.

#### THE "FORTY-NINERS" HOLD FORTH AT DECATUR.

The annual meeting of the "Forty-niners" at Decatur, Illinois, the first week in January of each year is an event that is looked forward to for at least six months and talked about for another six. The members of this club are not, as some may imagine, hoary-haired and bearded gentlemen, of California's boom days, but are just a nice lot of genial, whole-souled "knights of the grip," whose pay check emanates from the office of the H. Mueller Manufacturing Co.

The club is really an old institution, named for one of the popular products of the company at that time.

Following a week's school of instruction at the Decatur factory during the holidays, the members of the firm, of the "Forty-nine" Club, and about fifty invited guests enjoyed a get-together frolic, followed and interspersed with "eats," at the Decatur Country Club on the evening of Saturday, January 4th. About one hundred and fifty were in attendance.

An important incident of the evening was the presentation to W. N. ("Butsy") Dill of a gold watch, a fob and a diamond stickpin, worth altogether \$500, by members of the Mueller Company. Mr. Dill, who has been in the Mueller service for twenty years, is the company's veteran salesman.

He is retiring now with a fortune estimated at \$125,000, made largely through wise investments in real estate on the Pacific coast, which territory he has been covering for some years.

Two tables the length of the banquet room were tastefully decorated with streamers of pink tissue draperies and pink carnations. The guests were arranged by place cards.

The sixteen "recruits" or new members to be initiated into the club then marched in, dressed in grotesque costumes, about-faced, and on the back of each was displayed one letter of the word "Rapidac," the trade name of one of the company's lines of brass goods.

Before being seated, the diners picked up from their places fantastic head-coverings in all forms, cockades, hussars' caps, shakos, cossacks' caps and turbans. A fierce looking com-

was for Dr. Will Barnes, president of the Country Club, and whose hobby is the study of bugology. It read:

Washington, D. C., Jan. 4, 1913.

Dr. Will Barnes,  
care '49 Club,  
Decatur, Ill.

Have just received fine specimen of non-profanus high ballus country clubitis presidentus. Can your Club use it.

Prof. E. N. T. Mology.

This was followed by one to Bachelor Dill:

Salt Lake City, Utah, Jan. 4, 1913.

W. N. Dill,  
care '49 Club,  
Decatur, Ill.

Will I be yours? Should say so.

Miss Brigadine Young.



Front Row, left to right: S. Thornton, Robt. Mueller, Adolph Mueller, F. H. Mueller, Philip Mueller, F. W. Cruikshank, E. A. Mann, salesmanager, E. E. Pedlow.  
Second Row, left to right: C. J. G. Haas, C. T. Ford, W. F. Hennessy, W. E. Sippell, R. M. O'Rourke, W. C. Heinrichs, H. B. Ford, W. N. Dill, M. T. Whitney, G. A. Caldwell, F. L. Hays, Jr., L. A. Bland.  
Third Row, left to right: R. H. Powers, D. J. Mueller, R. M. Hastings, Jas. Smith, C. H. DuBois, J. H. McCormick, L. M. Cash, E. B. Cameron, D. E. Rowley, C. J. Tranter, T. E. Beck.  
Fourth Row, left to right: H. F. Clark, P. W. Scribner, H. J. Harte, E. C. Ince, W. F. McCarthy, W. N. Fairfield, H. G. Miller, E. S. Stebbins, R. B. Smith.

Some Members of Firm and Sales Force of H. Mueller Mfg. Co., Decatur, Ill.

pany they at once became. After the Mueller "Rapidac" yell, Adolph Mueller, as toastmaster, explained the use of the toy balloons, which were passed about by Fred Mueller, and which were then filled and allowed to ascend to the ceiling.

The chicken dinner was interspersed with music and songs by the crowd, after which confetti bombs were touched off by each guest, to add to the hilarity of the occasion.

A search for C. J. G. Haas, who sent word that he could not attend the banquet, was ordered, and when the searchers returned triumphant, Mr. Haas had to admit that Sunday afternoon at three was the time set for his wedding.

A branch office of the Roast-All Telegraph Co. was discovered in one corner of the hall, and presently messages for members of the company began to arrive. The first to arrive

Other telegrams that started merriment then followed:

W. C. Hennessy,  
care '49 Club,  
Decatur, Ill.

We ordered twenty-five bath cocks. You sent twenty-five water tapping machines just to swell your batting average. Can we return them from Japan.

Yamtumeza.

Salt Lake City, Utah, Jan. 4, 1913.

W. N. Dill,  
care '49 Club,  
Decatur, Ill.

Perfectly willing to be Number Two. Miss Josie Smith.

Philip Mueller,  
care '49 Club,  
Decatur, Ill.

Sarnia, Ont., Jan. 4, 1913.

Please give me your fishing and hunting schedule for the summer. Want to know where to reach you.

Oscar B. Mueller.



Salt Lake City, Utah, Jan. 4, 1913.

W. N. Dill,  
care '49 Club,  
Decatur, Ill.  
I'll make three of a kind. Thanks. Miss Mollie Young.

Salt Lake City, Utah, Jan. 4, 1913.

W. N. Dill,  
care '49 Club,  
Decatur, Ill.  
You can support four all right. Am willing.  
Miss Mary Jones.

Philadelphia, Pa., Jan. 4, 1913.

W. F. McCarthy,  
care '49 Club,  
Decatur, Ill.  
All the swivel disks on bibbs in last shipment were loose.  
Please explain. George Uber & Bro.

Salt Lake City, Utah, Jan. 4, 1913.

W. N. Dill,  
care '49 Club,  
Decatur, Ill.  
I'll make the fifth. Under the rules of the game you play best  
you can't hold more than five queens. Miss Salt Air Young.

Montreal, Canada, Jan. 4, 1913.

W. C. Heinrichs,  
care '49 Club,  
Decatur, Ill.  
We have booked you for toast "The Ladies" at next National  
Convention of Master Plumbers. Please begin doing road work  
and light training at once.

Not a member nor a guest could be gotten to admit that  
this was not the "biggest time" he had had in many a day.

Among out-of-town guests were W. J. Hilliard, president  
of the Illinois Master Plumbers' Association, of Elmhurst,  
Ill., and F. G. Paradine, of Erie, Pa.

During the week preceding the banquet the firm had dinner  
served to the salesmen in the convention hall. One menu,  
that of December 31st, will give an idea of the appetizing  
repast spread for the guests:

Roast Pork  
Sweet Potatoes  
Apple Sauce Cranberry Jelly  
Cabbage Salad  
Bread and Butter  
Coffee



Mueller's "Forty-niners" and Guests in Festive Costume at Annual Banquet, Decatur Country Club, Decatur, Ill.



#### Daniel A. Carr.

Daniel A. Carr, who for many years conducted a plumbing  
shop and stove store at the corner of Leverett and  
Causeway Streets, Boston, died at his home on Laurel  
Street, Somerville, Mass., on December 30. Mr. Carr  
was 76 years of age and had been in poor health for about  
two years. He retired from active business about five  
years ago. Five children survive him.

#### George E. Munro.

George E. Munro, a member of the firm of the George  
E. Munro Plumbing Company of Taunton, Mass., died at  
his home in that city just before the close of the old year  
after an illness of many weeks. He had been connected  
with the plumbing trade for many years, first as an em-  
ployee of Lyman Mason and of recent years as head of  
his own establishment. A widow, one son and two  
daughters survive.

#### Samuel S. Shedd.

Samuel S. Shedd, president and founder of the plumbing  
business of S. S. Shedd & Bro. Co., 432 Ninth street, N. W.,  
Washington, D. C., died last month at his home in that city.  
Mr. Shedd was one of the best known master plumbers in  
Washington and he had been connected with the trade in  
that city for more than thirty years.

#### George O. Wales.

George O. Wales, one of the most prominent iron and  
steel commission merchants in Massachusetts, died at his  
home in Braintree, Mass., on January 4. Mr. Wales was  
the head of the George O. Wales & Company of Boston.  
Mr. Wales, who was 63 years of age, had been in poor  
health for several months. He had been confined to his  
bed for three weeks.

Salt Lake City, Utah.—Midgley Brothers have been  
awarded the contract for the installation of a heating sys-  
tem in the county detention home. Consideration \$2,189.

Russellville, Ark.—The Russellville Plumbing, Elec-  
trical and Tinning Co. has been incorporated with a cap-  
ital of \$10,000. The officers of the company are: Presi-  
dent, W. J. White; vice-president, J. M. Ball; treasurer,  
John W. White; secretary, Lewis T. Ragsdale, and man-  
ager, A. D. Shinn.

# Convention Dates



January 14, 15 and 16, 1913.—Annual convention of the Iowa Master Plumbers' Association, at Sioux City, Ia. The officers of the association are: President, Robert Knauer, Des Moines; vice-president, Frank Vallers, Keokuk; treasurer, J. N. Gearen, Sioux City; secretary, Wm. B. McCarten, Dubuque.

January 15, 1913.—Annual convention of the Montana Master Plumbers' Association, at Helena. The officers of the association are: President, J. W. Kennedy, Missoula; secretary and treasurer, J. P. Grady, Missoula.

January 15 and 16, 1913.—Annual convention of the Wisconsin Master Plumbers' Association, at Milwaukee, Wis. The officers of the Association are: President, Geo. F. Reeke, Green Bay; vice-president, Louis Sonntag, Sheboygan; treasurer, F. E. Green, Janesville.

January 28, 29 and 30, 1913.—Annual convention of the Illinois Master Plumbers' Association, at Springfield, Ill. The officers of the association are: President, W. J. Hilliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, Bernard Gause, Jacksonville; treasurer, O. W. Dawson, Decatur; secretary, W. C. Haviland, Aurora.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinaber, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

## PHILADELPHIA ASSOCIATION NEWS.

On December 30th, the officers and board of directors were royally entertained by Mr. Harry L. Righter and his charming family. The regular board of directors' meeting and the "Board's" annual banquet were combined and after the Association's business was transacted the refreshment of the inner man began. The menu was varied, prepared as only Mrs. Righter can prepare it. The irrepressible and still unmarried D. F. Durkin acted as toastmaster for the evening and the roast each speaker received in turn was only equalled by the choice turkey on the table. Association matters, business for the coming year, the coming of the National Convention, all received thoughtful and earnest consideration, and the Philadelphia Association can be proud of and is fortunate in the fact that they have at the helm such an earnest and hard-working set of men, whose every thought is for the welfare of the association.

The regular meeting of the association was held at the Builders' Exchange on January 2d, and was as usual well attended. The following officers were elected for the year 1913: For president, Ed. F. Roberts, being elected for the fourth time in succession. Mr. Roberts was not in his accustomed place, still being confined to his home, due to his recently injured eye. The damaged eye is improving rapidly; even now Mr. Roberts can distinguish objects held before the eye, and the physicians expect that the sight will eventually become almost normal. The five elected vice-presidents are as follows: Samuel W. Barnes, Geo. F. Uber, Wm. Boal, D. F. Durkin, jr., and George Moeller. S. Louis Barnes, secretary for many years, well known on every con-

vention floor and now also member of the board of directors of the National Association, is again the pivot point of association matters in the secretary's chair. H. B. Lentz is looking after the funds of the association, being again elected as treasurer. No better man could be found for the office. The board of directors elected is the same as served the previous year, with one exception, Gregor Drummond voluntarily retiring from the board, Martin J. Morgan being elected in his place.

The elected board of directors are as follows: Harry L. Righter, Robt. H. Pflug-Felder, Fred P. Speth, Martin J. Morgan, Thomas B. Sutch and Robert J. Long. The very popular Elvin H. McKay was, of course, again elected as guardian of the entrance to the meeting rooms. Mr. McKay has been the honored sergeant-at-arms for many years.

The sudden departure from this life of Mr. T. A. Hill, of New York City, was sad news to the association, and the secretary was instructed to send a letter of condolence to Mr. Hill's family.

The total registration of master plumbers in Philadelphia up to January 1st was 1,053. The registration of journeymen was about 800 short of the previous year.

Mr. Herbert Hurst of Smalley & Hurst, who was recently operated on for appendicitis, was visited by a committee. From last reports he is doing excellent.

The leading hostelry of this city, the "Bellevue-Stratford," has been selected as the meeting place for the National Convention, the proposed dates being June 17th, 18th and 19th. Every effort is being made by the committee of arrangements to make the convention one long to be remembered.

Geo. F. Uber, chairman of the apprenticeship committee, with some formality presented a number of boys, who had completed their time as apprentices, with journeyman diplomas. Mr. Uber covered the subject with well chosen words and the boys, now fully fledged journeymen, seemed to receive the certificates with great delight and appreciation.

## GRAND RAPIDS MASTER PLUMBERS' ASSOCIATION ENTERTAIN.

The Grand Rapids Master Plumbers' Association entertained with a five course banquet in their Hall on the evening of Jan. 7, 1913. Their guests were the members of the Holland, Kalamazoo, and Muskegon Master Plumbers' Associations; The Grand Rapids Heating Association, and H. C. Cornelius, secretary Wolverine Brass Works, R. B. Kellogg, president of the Grand Rapids Supply Co., and Carrol F. Sweet, president of the Grand Rapids Association of Commerce.

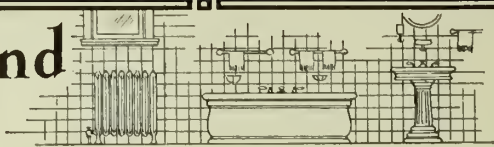
The program of toasts was most enjoyable and was appreciated by all present. The toasts follow:

"Judge" ..... Gen. Wm. T. McGurkin, Grand Rapids  
 "Hear ye; Hear ye:" Wm. J. Pulte, Bailiff, Grand Rapids  
 "You may be deaf, but you'll get your hearing in the morning" ..... Geo. McCullum, Muskegon  
 "Why working keeps me thin" .....  
 ..... Carrol F. Sweet, Grand Rapids  
 "Cracking Nuts in the 'Nut Factory'" .....  
 ..... James O'Neil, Kalamazoo  
 "Why 'Raising Money' is not Counterfeiting" .....  
 ..... Harold C. Cornelius, Grand Rapids  
 "All Plumbers in Holland are Irish" .....  
 ..... Geo. Van Landegend, Holland  
 "Why Mother makes it hard for Father" .....  
 ..... R. E. Heth, Grand Rapids

After the program the members remained for an hour or more to indulge in a general song fest, and voted the occasion one of the most enjoyable "get-together" events of many moons.



# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—Health Commissioner Young has had 1,000 buttons made for the Clean Chicago Club, organized last summer and composed of boys and girls who will aid in keeping the city clean. The button is white, with the inscription, "Clean Chicago Club, 1913," in red letters.

The Chicago Master Plumbers' Association at its recent monthly meeting selected the following delegates to the Illinois state convention, which is to be held at Springfield, Ill., on January 28, 29 and 30: E. J. Benning, E. C. Wagner, W. J. Lang, C. J. Boyd, P. M. Murphy, C. J. Stein, D. J. Hickey, C. A. Dreier, M. L. Mandable, C. J. Herbert, F. J. Dillenberg, C. C. Breyer, C. F. Taffe, W. D. Kelly, P. J. Foley, James Coupland, J. C. Naughton, G. A. Larson, W. F. Bahn, William Redieske, Thomas Beggs, Henry Breyer, L. Claussen, Fred Grosch, William Gavne, John Delehant, William Morris and B. E. Lynam.

The South Side Master Plumbers' Business and Social Club of Chicago will hold its third annual reception and ball at Forum Hall on Friday evening, January 24. J. A. Goodbrand is chairman of the arrangement committee.

The five members of the committee appointed by the Chicago Master Plumbers' Association to frame resolutions endorsing the appointment of a master plumber on the state board of health, are David J. Hickey, P. M. Murphy, C. J. Herbert, C. C. Breyer and C. F. Taffe. The resolutions will be presented to the Master Plumbers' Convention at Springfield on January 27th.

A lecture on the work of the sanitary open air treatment afforded epileptics in the public schools was given recently by Miss Azile B. Reynolds, principal of the Armstrong Grammar school of Rogers Park, at the First Congregational church of Evanston.

An address on house sanitation as a means of preventing consumption was made on January 10th at 8 p.m. by Dr. John Ritter, director, in the Chicago Tuberculosis Institute, at the Chicago Commons, Grand avenue and North Morgan street.

David J. Hickey recently returned from French Lick Springs, Indiana, after remaining there for a brief period. He has come back feeling pounds better.

Thomas J. Claffy, assistant chief inspector, Sanitary Bureau, City Hall, is back at his desk after a brief furlough during the holidays.

The plumbing inspectors attached to the sanitary bureau, who were temporarily "laid off," for economy reasons before the holidays, have been reinstated and are all busily engaged in making their rounds of inspection.

Wm. Sullivan, heating contractor, 36 West Michigan, has started work on the Hill building, Van Buren and Aberdeen streets, where he has a contract for installing steam heat. This is an eight-story concrete office and factory building. D. H. Burnham & Co., S. Franklin and W. Congress streets, are the architects. The contracts were let separate. M. J. Corboy Co., 178 W. Randolph street, has the contract for plumbing and the work is now well under way.

## Ohio

Cincinnati.—The Cincinnati Master Plumbers' Association at its regular meeting held January 2nd, elected the following officers to serve for the year 1913: Thomas J. Dyer, president; Andrew Murphy, vice-president; Mr. Hill, secretary; J. B. Lauman, treasurer; George Kiesewetter, sergeant-at-arms; Edward Morgan, Edward Frank and John Vogelpohl, board of directors.

The meeting was quite well attended considering the inclement weather and the election proved a most spirited one. The retiring president, Ray Hillenbrand, was presented with a diamond-studded watch charm, and the clever speech made by President Thomas Dyer showed that he is quite an impromptu speaker. After the election the members sat down to a sumptuous repast at the Hof-Brau, where speeches and merry-making were pleasantly indulged in.

Krouse & Harlowe, for many years located on McMillan Street near Park Avenue, have dissolved partnership and are succeeded by Joseph Riley, one of their former employes. The firm was composed of Louis Krouse and John Harlowe who lately became chief plumbing inspector of the city. Mr. Krouse will represent the Pfau Mfg. Co., and will call on the trade in Cincinnati and vicinity.

The contract for the plumbing in alterations being made in the Ohio National Guard Armory, located on Freeman Avenue, has been awarded to Thomas Canary, 204 W. Seventh Avenue. The contract requires the installation of about 30 fixtures, as per plans drawn by Architect A. C. Kuball.

H. G. Franklin, of the Franklin Plumbing & Heating Co., will erect a flat and store building on Mitchell Avenue and Carthage Pike, on lot purchased from Herman J. Witte. The building will be 80 x 115 ft.

The following members of the Cincinnati Master Plumbers' Association were elected as delegates to the Convention of the Ohio State Association, to be held in Toledo, Ohio, in February. Thomas J. Dyer, John Vogelpohl, Jerome Murphy, Andrew Murphy, Mr. Schwartz, Edward Kleine, Ray Hillenbrand, and Edward Morgan.

The employees of the Crane, Hawley Co., the local branch of the Crane Co., of Chicago, were presented with the usual holiday remembrance, amounting to ten per cent of their yearly salary. This practice has been carried out for the last eight years by the Crane Company in all its branch houses, and as these now number nearly forty-five the total amount of this year's remembrance required nearly \$600,000.

The following plumbing contracts have been awarded: Kleine & Bernard, a residence for Mr. J. Rapp; William Hillenbrand Co., a St. Louis flat building for Mr. John N. Frohmiller; Murphy & Ditchen, four residences for M. L. Barbour; Frank Hamer a residence for Samuel A. Croker; Leo Blaesi a residence for Hiram Rulison.

Columbus.—F. S. Fravel, who has been the Ohio representative of the F. W. Dodge Company of Pittsburg for

several years, has tendered his resignation and accepted a position on the sales force of the Columbus Heating & Ventilating Company.

Lima.—The Morgan-Wood Company, of this city, which was recently incorporated with an authorized capital of \$15,000, has taken over the business of the partnership formerly known as the Morgan & Wood Plumbing Company, on West Spring Street. The incorporators are John M. Morgan, Clifford M. Wood, jr., W. L. Parmenter, B. A. Gramm and Charles Wilson. Messrs. Morgan and Wood, acting as individuals, have purchased a lot on North Central Avenue, upon which a warehouse will be erected for the plumbing company.

Dayton.—The contract for the heating and plumbing work in the new six-story mercantile building being erected on East Third Street by Frank Hill Smith has been awarded to William Haas, 429 East Third Street. Mr. Haas recently finished remodeling the heating plant in the Lowe Brothers Company factory building. He is working on a number of contracts, including the plumbing work in the Coleman apartment houses on Jones and Clay Streets; the heating installations in the Buvinger Building on Canal Street; the Apple Electric Company's buildings; the heating and plumbing work in the new Dayton Gas Company office building at First and St. Clair Streets; the Graves apartment house on Logan Street and several large residences, including those being erected by W. E. Best, Geo. Grove and the Adam Schantz Estate.

The Case-Ringelspauh-Wilson Company, 522 Washington Street, has been awarded the contract for the heating and plumbing work in the new building being erected by the Kay & Ess Company on Leo and Kiser Streets.

Columbus.—The Huffman-Conklin Company, 661 North High Street, has been awarded the contract for the heating and plumbing work in the new Mercy Hospital buildings.

Canton.—Schneider & Westrick, 210-12 W. North St., are moving their plumbing establishment to larger quarters at Cleveland and North streets. Their new building will give them about three times their present amount of floor space. They will be ready for business in their new quarters in about two weeks.

## Pennsylvania

C. L. Wooldridge, superintendent of public buildings of Pittsburgh, has made recommendations, which, if carried out, will mean that about \$750,000 will be spent in improving the sanitary conditions and heating arrangements of the schools of the city.

W. H. Garber, manager of the Dawes & Myler Works of the Standard Sanitary Manufacturing Co., at New Brighton, Pa., has been elected a director of the Beaver County Trust Co.

Joseph J. Kern and H. R. Truby have opened a plumbing establishment at 245 Connemaugh Street, Johnstown. They will give especial attention to hot water heating. Mr. Kern is a native of Johnstown, and Mr. Truby has been there for several years.

Regan & Hormell, of Charleroi, have secured the contract for plumbing 116 houses being erected at Fredericktown, Pa., for the Pittsburgh-Buffalo Co. The houses will be occupied by miners, employes of the company. Each house will be equipped with plumbing fixtures.

Philadelphia.—J. McGuckin & Bro., 1023 Christian Street, have been awarded the plumbing and heating contract in the four-story office building and store which are being erected at 1634 Market Street.

S. M. Wilson, 41st and Haverford Avenue, has been awarded the heating contract in the large residence of Mr. M. Henry, 927 Belmont Avenue.

F. W. Taylor & Son, 314 S. 4th Street, are installing a large heating system in the residence of Mr. H. L. Brown, 314 S. 4th Street.

West End Heating & Engineering Co., Lancaster Avenue, were the lowest bidders and have been awarded the contract to make extensive alterations to the heating and plumbing system in the public building here. This work will cost over \$5,000.

Richmond Radiator Co. has just completed plans for several one and two-story factory buildings to cost about \$150,000, which are to be built on a tract of four acres at the corner of Milnor and Devereaux Streets.

Chris. Rieben, 25th and Dauphin Street, has a number of new bath rooms to install. He also reports a large amount of heating systems to install in the coming month.

Philadelphia.—The plumbing trade generally, after the heavy pressure of the fall work, received quite a set-back during the latter part of December. It seemed to be general that the rush of business continued right up to Christmas, then taking a sudden slump, at present leaving a large number of men out of employment. There seems to be considerable activity in the building trades as the weather has so far been open. The ground is still free from frost and considerable business is expected to develop during the early part of the year.

The new year financial reviews, made up largely of interviews of men prominent in industry and finance, as to existing conditions and probabilities of the future, have been encouraging in the highest degree. During the recent holidays, business in general has been as lively as ever, and in the great manufacturing plants little of the usual enforced vacation time was allowed the men employed. Business men generally, almost without exception, say that business conditions are all that could be asked for and that there is every likelihood of continued prosperity. Labor is perhaps more fully employed today than it has been for the last five years and wages as an average are higher. Banks and financial institutions generally report a satisfactory condition in every way. Prices have changed but little from what they were a year ago; however, they are low rather than high.

## New Jersey

Burlington.—Edw. Marlin, jr., has just been awarded the plumbing and heating in the new Elks' home in this city, which is now in the course of construction. He has just completed installing a heating system in the St. Mary's College here which cost over \$5,800.

E. C. Fish, Riverside, N. J., has just been awarded the heating contract in the Burlington Hall here. Cost, \$2,500.

Mt. Holly.—Garrett & Dubell have been awarded the contract in the new home for the Lorrillord Estate in Jobstown, N. J.

Camden.—J. B. West, jr., 445 Pine Street, has just recently built a two-story addition to his office, which he will use as a shop and garage.



## Kentucky

Louisville.—An important meeting of the Master Plumbers' Association will soon be held at the Association headquarters, Fourth Avenue and Green Street. Most of the meetings of the local fraternity are important, but the coming one will be especially so in view of the fact that the installation of new officers for 1913 will be the feature of the evening. George W. Schardein has been re-elected president of the Association. The ability which he displayed during his first administration stamped him as the logical man for a second term. The other officers of the body for the ensuing year are to be announced after the installation meeting. The L. M. P. A. is now more prosperous than it ever has been before, and at the rate at which new members are being enrolled, it is a certainty that 100 per cent of the employing and buying trade of Louisville will be listed on its roster in the near future.

Several excellent heating jobs have kept the forces of Neville, Kellner & Co. busy during the past couple of weeks. The company is installing a steam heating plant costing approximately \$1,600 in the new Jefferson Library, at Eighteenth and Jefferson Streets, and an air-line heating plant with a battery of low-pressure boilers in the Montgomery Street school. The furniture store of William F. Mayer at Fourth Avenue and Market Street has been equipped with a vacuum heating system by this concern. The board of education contract is for work costing \$5,500.

The residence of Dr. J. B. Shacklette, in Highland Park, is being equipped with plumbing by C. W. Bauer & Son.

Nolan Brothers have removed their plumbing shop on Third Avenue directly across the way to more commodious quarters. The address of the firm is now 553 South Third Avenue instead of 542 as heretofore.

Extensive plumbing installed in the German Protestant Orphans' Home at 1232 Bardstown Road, including considerable new installation as well as jobbing work, has been a feature of the business of F. William Meyer during the past couple of weeks.

Three contracts involving both plumbing and heating installation are keeping F. S. Schardein & Sons busy these days. Heating improvements for the extensive addition to the Masonic Widows' and Orphans' Home, Second and Avery Streets. The extension of radiation equipment to the second and third floors of the new City Hall annex at Sixth and Jefferson Streets; and a plumbing and heating contract for work costing approximately \$1,200 in the new building which is being erected at 220 East Market Street by George Deckmann.

That the correct installation of even the most modern heating systems is a feature not to be discounted, because of the importance of the fire-preventing features of this work is the conclusion arrived at by many domestic engineers in Kentucky. Fire prevention organizations throughout the state are taking especial care nowadays in inspecting the risk apparent in even the most approved heating plant, and thoroughly good workmanship in installation is counted by the underwriters as essential as is the character of the equipment itself. An example of this is found in a recent special notice issued by the Kentucky State Fire Prevention Association, Board of Trade Building, Louisville, calling the attention of its members to the fact that the heating arrangements in the courthouse at Carlisle, Ky., are not satisfactorily installed.

Washing machines are an unusual line featured by John B. Stickler & Son, one of the plumbing firms in Louisville. It has been their experience that a standard washing machine is possessed of distinct salability in the trade, especially in connection with the installation of new kitchen plumbing in a home. It is in handling work of this sort that the plumber comes in close contact with either the mistress of the house or the major domo of the kitchen, either of whom is sure to be interested in laundry work, and the presentation of washing machine selling talk at the psychological moment has resulted in the establishment of exceptionally fair business in this special line.

Virgil Conn, of Lancaster, Ky., a prominent member of the Louisville Master Plumbers' Association, was recently united in marriage to Miss Bertha Curd, of Williamsburg, at the home of the bride's parents in this city. While on a wedding trip East, Mr. and Mrs. Conn visited Louisville for a short time and were entertained with a banquet at The Seelbach by members of the Louisville Master Plumbers' Association.

## Texas

### Showroom at Denison, Texas.

The Modern Plumbing Co., Denison, Texas, are firm believers in the efficacy of the showroom, and have an excellent display. They have been in business three years and under the efficient management of Jack Campbell, have built up a fine business. They have just secured the contract for the plumbing and hot water heating in



The Attractive Showroom of the Modern Plumbing Co., Denison, Tex.

the residence of J. W. Madden, the whole job amounting to \$3,000. They are also remodeling the steam heating plant in the Southwest Surety and Insurance Company's building, using 2,800 feet of radiation. Mr. Campbell is seen standing in the center of the picture.

Richard W. Lewis, Box 486, Paris, Tenn., is preparing to purchase a complete steam heating plant to be installed in the First Presbyterian Church in Paris.

Marshfield, Wis.—Alexander Mettelka has purchased his brother John Mettelka's plumbing business at Walnut and North Depot streets.

Buffalo, N. Y.—The Long Co., of this city, has secured the contract for the plumbing in the new Masten Park High School. Consideration \$90,000.

## Massachusetts

Lowell.—Welch Brothers have the contract for steam heating apparatus in a big new round-house which is being erected at Springfield by the Boston & Maine Railroad. They also have the contract for plumbing in railroad buildings at Manchester, N. H.

Leominster.—The new inspector of plumbing, who is expected to be named by the board of health within a few days, will also be appointed agent of the board of health and will be allowed a salary of about \$1,000 for caring for the two jobs.

Westport.—The firm of Lyon & Kaiser, plumbers, has been dissolved. P. J. Lyon has taken over the business and will conduct it under his own name. The other member of the old firm, Fred Kaiser, is making plans to open a plumbing and steamfitting establishment of his own on Main Street.

## Connecticut

New Britain.—A plumbing inspector who shall give part of his time to the work in New Britain and receive a salary of \$800, has been recommended by the council. The appointment will be made later.

Wallingford.—Edward F. Kavanagh, for several years engaged in the plumbing and tinning business in this town, has sold out to James Burke and Paul Pylasky. The new firm, known as Burke & Pylasky, took possession on New Year's Day. Pylasky is a former employee of Mr. Kavanagh.

Bridgeport.—N. B. Curtis & Co. has the contract for the plumbing and heating in a brick store and tenement building on East Main Street for the New York Furniture Company.

## New York

Ithaca.—Dean & Ferguson, 313 State Street, have been awarded the contract to do the plumbing and heating for the state in the auditorium for the Agricultural College, and the Clinic hospital in connection with the veterinary college. Also the new high school, which will be a one-story fireproof building, equipped with steam heat, up-to-date plumbing and ventilating systems.

Oneida.—Plans are under way for a new modern fireproof hotel to be built in the spring. The Chamber of Commerce and Board of Trade have combined their efforts in securing the desired building and location. The structure when completed will cost about \$100,000.

Wicks & Hughes, 224 Genesee Street, will work night and day to complete the plumbing, heating and ventilating work which they are installing in the new Bender opera house. Each dressing room will be equipped with hot and cold water, and a rest room for men and women, with complete toilets and lavatories. Sabine and Harvey, 74 South street, have completed work in the Amlott apartments at 264 Genesee street, in which plumbing work cost \$6,600.

Klein & Hoefler, at 56 Blandina street, report all the work on hand they can take care of until next April.

H. J. Brandeles, 101 La Fayette street, has been awarded the following contracts in plumbing and sprinkler work: Oneida County home and hospital, steam work, generators and power plant, amounting to \$35,000; Fulton County Silk Mills, at Gloversville, heating and auto sprinkler system; Johnstown Knitting Co., Johnstown, N. Y.; and the Tempest Knitting Co., Perry, N. Y., heating and sprinkler work.

Hesse-Scharff Co., 451 Columbia street, have agreed to install a turkish bath at 499 Genesee street; also the heating system, amounting to \$3,500.

H. C. Brunett, 49 Saratoga street, was the low bidder on the Simmons building on Columbia street, near Genesee street. He will install the plumbing and heating, to cost \$2,600; also in F. Gilmore's residence, 729 Genesee street.

Binghamton.—McManamy & Rodman, 31-41 Chenango street, report contracts as follows: Reynolds Bros.' building, plumbing and electric fixtures, \$5,000; St. James convent to be remodeled, plumbing and electric fixtures, \$2,000; the Clonney apartments, plumbing work, \$2,500.

## Georgia

### One of Georgia's Progressive Shops.

One of the liveliest of Georgia's plumbing firms is that of the Henry Hutt Co., at Augusta, Ga. This firm is not only big in the plumbing and heating business but are engineers and contractors who go beyond the pale of many in the plumbing business. They are energetic in the sale of acetylene gas machines, gasoline storage out-



The Henry Hutt Co's. Establishment at Augusta, Ga.

fits for private garage users, and other features that appeal to the country home owner as well as his city cousin.

The illustration shows their store front with Mr. Henry Hutt, General Manager, in the front door. At his right is Albert Hutt, the buyer and salesman, and at his right, L. E. Murray, bookkeeper. At the left of Mr. Hutt is John Palmer, foreman of teams.

The company keeps from six to eight plumbers constantly employed and a corps of sewer men and helpers which runs from fifteen to twenty during the season. There is no doubt about there being business in Augusta to look after and there is no further doubt about The Henry Hutt Company getting their full share of it.



## Minnesota

St. Paul.—The late arrival of zero weather has brought a smile to the faces of the several journeymen plumbers who are idle, as the warm weather had put about forty plumbers out of work, there being practically no jobbing to speak of in the plumbing line but as the thermometer has gone below zero and promises to stay there, there will no doubt be plenty of frozen water pipes to repair and several weak heating plants to be enlarged.

One of the busiest plumbers in the city last season was Andrew J. Conroy, 534 Forest Street. It was his first year as a master plumber. He has installed plumbing and gas fitting in some of the largest residences in the city. Among some of the best work he has done is the plumbing for Prof. Jamieson at 1966 Laurel Avenue; in a new residence for Mr. A. Hamilton on Mt. Ida Street; a duplex flat for James Whalen at 1031 Burns Avenue; a new dwelling for Mrs. John Flynn, 970 McLean Street; William Paulson, 947 McLean Street; J. C. McCormick, 845 Rice Street; and has installed several new bath rooms in remodeled houses in lower town for Smith & Taylor of 48 East Fourth Street.

The Healy Plumbing & Heating Co., 278 West Third Street, were awarded the plumbing and steam heating in a new Railroad Building at Great Falls, Mont., for the Great Northern Railway Company.

## Nebraska

Omaha.—B. Greenwald, 1110 Farnam Street, has been awarded the contract for the plumbing, heating and ventilation in the new west wing of the Boise, Idaho, high school. This work is now under way, the contract being approximately \$26,000. He also has contract for plumbing, heating and ventilation in the Miller Park grammar school; contract price, \$12,000. Mr. Greenwald has just recently installed a 16-inch power pipe machine.

Daugherty & Mortensen, 1308 N. Twenty-fourth Street, are installing a steam heating plant in the new building being erected for the Baker Mfg. Co., Eighth and Douglas Streets, the contract amounting to \$1,500. They report a good year's business; while not doing as much work, their profits have been greater.

Schollman Bros., 4110 N. Twenty-fourth Street, report a good year's work. At the present time they are installing the plumbing and heating in a \$20,000 residence for Wm. McAnliss, at Sloan, Iowa, which is to be one of the finest in that section. The plumbing is to be all modern with complete water system; contract, \$3,000. Also business block at Red Oak, Iowa, plumbing and heating; contract, \$2,400.

## California

San Francisco.—Business has been considerably interrupted by the holiday festivities, stock-taking, etc., though much encouragement may be derived from the comparatively large number of building contracts let during the last fortnight, and an early revival of activity is expected. The new year opens with the plumbing and allied trades in very satisfactory shape, and prospects for the best

year since early rebuilding times. While much of the large construction work in contemplation throughout the state will not directly affect these trades, a favorable reaction is assured from the general up-building of the country. Locally, the exposition, harbor and sewer work will be continued energetically, while large hydro-electric developments are under way in the mountains, and the year will mark a great advance in irrigation and road improvements in the valley district.

This is rather between seasons with the local manufacturers of pumps and irrigation supplies, but business has kept up well to the holidays, and another big year is anticipated. The state is now beginning to suffer for lack of normal rainfall, but last year gave the farmers a fair appreciation of other means of obtaining the necessary moisture. The tendency, where a gravity water supply is not available, is to install small pumping units, with electric or gasoline power, and owing to loss by seepage and evaporation, portable or stationary pipe systems are in many places replacing the old-time ditches.

The largest building contract let this week was for the Machinery Hall of the Panama-Pacific Exposition, the lowest bid being \$509,000. Other large jobs in immediate prospect are the Oakland auditorium; the U. S. Sub-treasury, for which figures will be opened in about a week; and the local city hall, preliminary plans for which have been in the hands of contractors for several weeks. Other exposition building contracts will probably be let within the next 60 days.

Tom F. Leary, coast manager for the H. Mueller Mfg. Co., is now comfortably settled at his new quarters on Mission Street, and is receiving many inquiries from the trade in this vicinity. He expects the first large shipments of stock from the factory within the next few weeks, and by Feb. 1 will be in a position to fill all orders. Several men have been started on the road from the local office, and will thoroughly cover the entire coast territory from Mexico to Canada. Until the stock arrives orders will be taken for shipment direct from the factory.

P. E. Glafke Company, handling oil burners, brass fixtures, etc., report a materially larger total of business for the past year than for 1911, though there has been considerable variation in the volume at different times of the year. They note considerable sharp competition in oil-burning devices, a great number of which are being exploited in this territory.

L. M. Wade, for many years associated with the lino-type machine, is opening the new year as representative of the Pacific Metal Works, with headquarters at the company's San Francisco branch. Mr. Wade's familiarity with all kinds of alloys will make his advice of considerable value to all users of babbitt metals, etc. This company reports a highly satisfactory year at its three branches in San Francisco, Los Angeles and Portland, Ore.

The Peterson-James Company has taken the plumbing and heating contract for the S. & G. Gump hotel building at Geary and Jones streets, at \$12,652.

E. C. Curtis has taken the contract for plumbing and gasfitting and risers for a vacuum cleaning plant, for a 5-story hotel on Bush Street, near Mason, at \$667. The steam heating and hot water supply plants will be installed by J. E. O'Mara for \$1,900.

The city of Portland, Ore., opened bids this week for the projected public comfort station at Sixth and Yamhill Streets.

James J. Garvin has opened a new plumbing shop at Stockton, Cal.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation.*

Whole No. 1049

CHICAGO, JANUARY 18, 1913

Vol. 62, No. 3

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## THE VALUE OF THE TRADE-MARK.

A COUPLE of years ago a business man walked into a plumbing shop and asked the proprietor if he could install for him in his home, a well-known trade-marked lavatory.

"I don't happen to have that in stock," said the plumber, "but here is a lavatory that will cost you quite a little less, and the only difference is in the name. You know these trade-marked lines have to sell for more because of their reputation."

The customer was finally induced to place the order and the lavatory was duly installed.

Last month the customer again called on the plumber—this time to protest against the defects which had developed in the lavatory. "I can't do anything for you," said the plumber. "This lavatory was sold without a trade-mark. I don't know who made it, but will take it up with the supply house. Perhaps I can get them to do something."

In a few days the owner again called. "The supply house says that they are not now handling that line, and therefore would not be able to secure redress from the manufacturers. They also know that I only buy bargains from them, and they are not very anxious to make it good."

To date the owner is still struggling for an adjustment—the plumber is still wrangling with the supply man—and the manufacturer is discredited.

Had this lavatory carried the manufacturer's trade-mark, the solution would have been im-

mensely simplified—with the chances ten to one that there would have been no complaint.

While the manufacturer's trade-mark cannot absolutely insure perfection, no manufacturer who values his future business will knowingly place on the market inferior or defective goods bearing his name or identification.

This fact alone is assurance of satisfaction in the great majority of cases. The further fact that these trade-marked goods are advertised to the trade, is another excellent reason for their use.

It is a well-known fact that no line of goods can continue to be extensively advertised if the goods themselves fail to give satisfaction.

There are on the market today hundreds of lines of "competitive" goods—sold at a lower price than the trade-marked lines, under the plea that "they are just as good, but without a profit tacked on for the reputation."

When it comes down to brass tacks, who pays for the "competitive" goods? Wherein do they bring **ultimate** profit to plumber, fitter, owner, jobber or manufacturer?

Two-thirds of the people who buy pianos are not competent judges of value in a musical instrument. A large proportion invest in a piano as a piece of furniture—the style of the case and the exterior finish are considered as all-important—the instrument may not be used musically once a month.

Yet the man or woman who **knows** a piano and expects to use it for its musical value, looks carefully at the **construction** of the instrument, and then, likely as not, bases the choice on the reputation of the manufacturer.

But in the purchase of plumbing and heating equipment how few owners know **anything** about quality or methods in manufacture! How few are in a position to **judge**!

Plumbing and heating equipment is not bought as furniture, but for its usefulness in everyday practice. The slighting of quality means eventual dissatisfaction.

The factor of safety lies in the use of trade-marked goods—lines that the manufacturer has the courage to advertise over his own name and through his distributors.



# An Unusual Factory Heating Installation

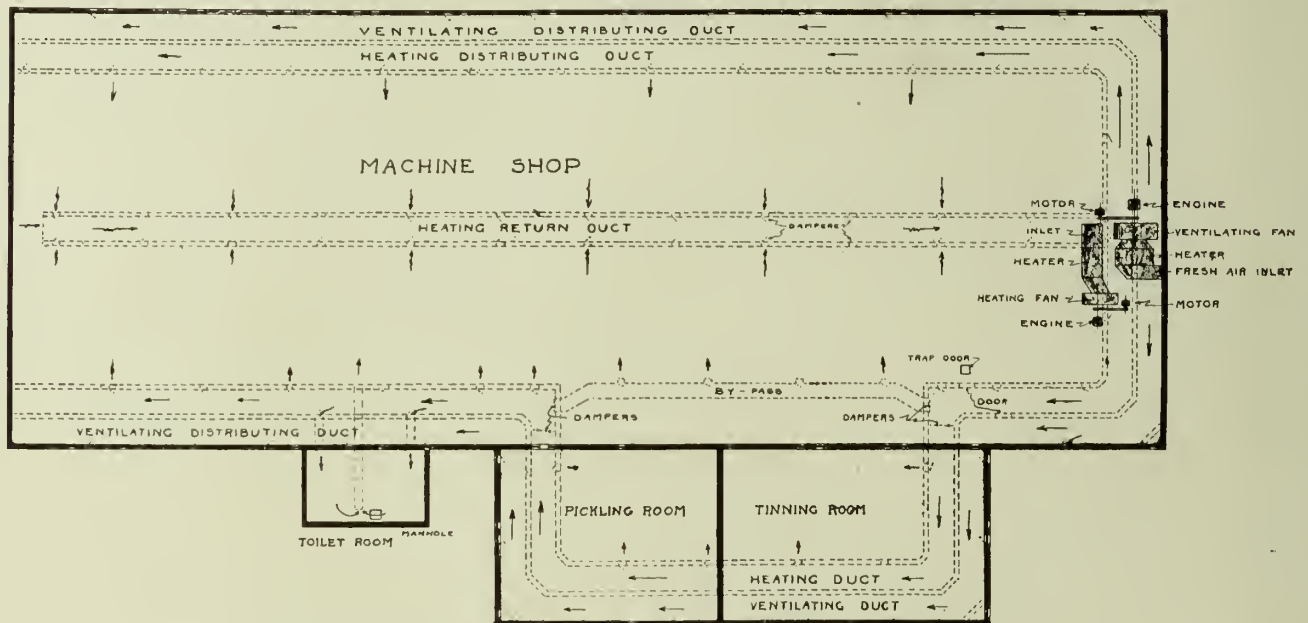
Factory Heating Often Presents Problems That Seem Almost Insurmountable. An Interesting Solution is Here Presented

By E. Morris Lloyd

IN April, 1910, the De Laval Separator Company sent out specifications for a very novel heating system which they wished to have installed in a large addition to their plant in Poughkeepsie, New York. The matter was placed in the hands of the John W. Ferguson Company of Paterson, New Jersey, one of the largest engineering and contracting concerns in the country. The

unusual engineering features involved in a heating system of this nature the contract was a very desirable one and the competition was consequently very keen.

The main building was constructed of 12-inch brick walls, with 16-inch pilasters, and contained no windows, the source of light being through a saw-tooth roof. The pickling and tinning departments were of the regular con-

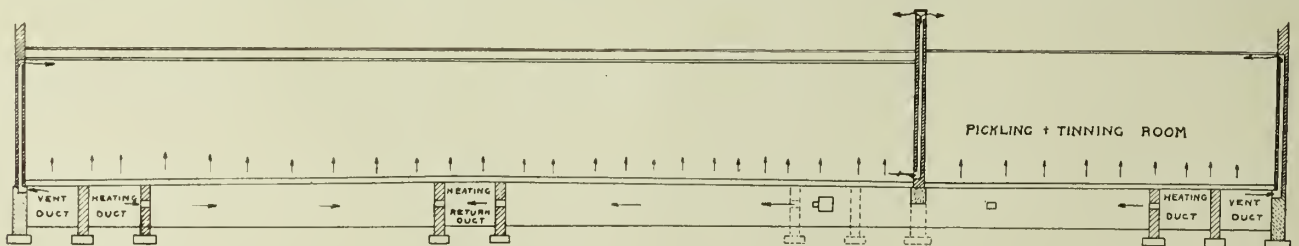


Plan of Heating Plant in the DeLaval Separator Co.'s Factory at Poughkeepsie, N. Y.

method of heating proposed was so at variance with the usual well-known systems in use, as to stand almost without a parallel in this country, and should prove of unusual interest to engineers and factory owners, who are contemplating the erection of new buildings. The plan consisted of heating their new buildings without direct

struction with trussed roofs. Under the entire building was a basement. The main floor was of concrete seven inches thick.

The ventilating unit called for was of the usual type, the air being delivered through underground ducts in the basement and up through vertical flues built in the pil-



Section of the Above Mentioned Heating Plant.

radiation, and also without introducing heated air directly into the mill.

The new additions consisted of a main building, which was composed of a large machine shop, a tinning department and a pickling department. A smaller building was also erected for use as an oil house. The contract for the heating installation was awarded to the American Blower Company of Detroit, Michigan. Because of the

asters. The air was introduced into the different departments at the room temperature, and consequently did not figure as a factor in heating the buildings.

The heating coils in connection with the ventilation system were so arranged that cold water could be circulated through them in summer to keep the buildings at a comfortable temperature.

The heating was done entirely by radiation through

the seven-inch concrete floor. Hot air was delivered through underground ducts in the basement. These ducts had numerous openings equipped with adjustable dampers, through which the air was introduced into the basement, where it was freely circulated, and then carried back to the heating system by means of underground return ducts. The temperature wanted in the work rooms was seventy degrees in zero weather.

We believe it will be of interest to describe the method of determining the requisite size of apparatus, as the en-

difference in temperature, gave 113 degrees. This represented the difference between the temperature at which the room was to be kept and the necessary temperature required in the basement. Therefore 113 degrees plus the room temperature of 70 degrees gave a temperature of 183 degrees, at which it was necessary to keep the basement heated at all times. Then allowing for the diffusion loss, and the loss due to radiation through the ground and the walls of the basement, and also the ducts, a temperature of 245 degrees was found necessary for the air



Interesting View of Fan, Motor and Engine, Showing Fan With Belt Drive.

gineering features were so unusual. There was practically no precedent to be guided by, and the results had to be determined from a purely scientific standpoint, as it was impossible to check up the resultant figures from experience obtained from other installations.

The amount of air, and the necessary temperature to be maintained in the basement and at the supply fan were determined as follows: The radiation loss through the walls and roofs, and also the B. t. u. required to heat the air contained in the building, were derived by the regular methods commonly in use. The total B. t. u. thus determined were divided by the area of the floor in square feet, which gave the number of B. t. u. to be transmitted through each square foot of floor. This result divided by .55, which was the B. t. u. transmitted through one square foot of seven-inch concrete per hour per degree

leaving the heater. From this it was determined that the air required amounted to approximately 41,000 cubic feet per minute. This was equivalent to about a four-minute air change in the basement.

The apparatus used was a No. 10 full housed single inlet fan. The driving factor was a 9x7 vertical fully enclosed, self-oiling engine, which was direct connected to the fan by means of a flanger coupling. The engine was supplied with steam at approximately ninety pounds pressure.

It will be noticed from the drawing and illustration that the fans are furnished with pulleys for belt connection to motors. This arrangement was considered advisable in case the owners wished at any time to run the fans by electrical power, thus effecting a saving on their steam plant.



The heater consisted of seven standard sections containing twenty-three hundred square feet of heating surface. This heater was supplied with steam at one hundred pounds pressure at the headers. Each section of the heater consisted of one inch pipe spaced at  $1\frac{3}{4}$ -inch centers, screwed into a cast iron base. This base was divided into two compartments by a partition through the whole length from end to end. There is absolutely no communication between these two compartments except through the vertical heating pipes. In consequence, there is no possibility of the steam short-circuiting or air binding.

The air is forced through the supply ducts, and then recirculated back to the heater through the return ducts. This is clearly shown in the illustration, Fig. 2. This recirculated air was assumed to be in the neighborhood of 130 degrees. This was a factor of safety as the air actually returns at a somewhat higher temperature after the apparatus has been running a short time.

The oil house was of somewhat similar construction, having stationary windows, but without a basement. The hot air in this case, also, was forced through underground ducts, the heat radiating through the walls, and the top of these ducts was then conducted through the concrete floor above.

For ventilating purposes some air was introduced into the building direct through another system, thus augmenting slightly the main apparatus. This ventilating system as in the case with the main building, was so arranged that cold water could be recirculated through the coils for reducing the room temperature to a point where it was very comfortable, even in the hottest weather.

The above installations were made during the fall of 1910, and have been in operation for several very severe winters. The results obtained proved to be highly satisfactory. The temperatures throughout the several departments were found to be perfectly comfortable at all times and there was a difference of only a few degrees between the highest and lowest temperatures in the different parts of the mill.

One of the unusual features in connection with the above system of heating was that at no time did the temperature of the floor become objectionable because of undue heat, and it was possible to hold one's hand upon it indefinitely without burning. It was merely warm and comfortable to the touch. Another point learned was that when the floor was heated the employees were entirely comfortable, although the temperature at the breathing line at times was allowed to drop to as low as 60 degrees.

One of the advantages claimed for this method of heating was the fact that absolutely no space was sacrificed, as would be the case with direct radiation, also by omitting overhead ducts no loss of light from the monitors was incurred.

Columbus, O.—The Roberts Plumbing Co., of this city, has secured the contract for the plumbing and heating in the King residence in Jefferson avenue.

Minneapolis, Minn.—Worthington & Co., 322 Third Avenue, South, have secured contracts to install plumbing, gas fitting, septic tank and pneumatic water system in the Interlocken Club at Savage, Minn. Other contracts recently secured by this company are as follows: Plumbing in the new residence of C. L. Ware, on 50th street; plumbing in the new residence of Gust Elm, at 48th street and Second avenue; plumbing and sewage system in the Minneapolis Field Museum. Mr. Worthington reports a very prosperous year in 1912 and has enough of work on hand to keep his full force busy all winter.



By H. E. S.

#### General News.

The new Continental-Commercial National Bank Building is going to be the biggest building in Chicago by all odds and it's pretty generally conceded that the plumbing will amount to some contract, all right.

An unusual exodus from old quarters has been noticed since the first of the year. Manufacturers and jobbers say business expansion accounts for it.

No let up. Everybody in the building business is looking forward to another big year of prosperity.

#### Editorials.

The overwhelming prosperity which on all hands is recognized as having fallen to the lot of the heating and plumbing contractors of late should not be allowed to over play its part. Prosperity per se is a blessing, for it achieves that end of encouraging those whose optimistic youth is not so much in the foreground as formerly and it also serves to make one less intolerant of the grocer and the butcher. But rarely ever is prosperity content with these simple services. It seeks often to accomplish automobiles, champagne-suppers and social ambitions. These are likely to exceed the speed limit and reach the goal of disillusionment long before another wave of prosperity is scheduled to arrive. Especially is this true if, to begin with, the prosperity is somewhat of an ephemeral nature.

"Big Business" in these transitional times is in much the same sort of pickle as one who lays everything on the merits of the red over the black, and discovers to his consternation that the black was a dark horse. Yet it is just such unexpected phenomena that develop philosophy and character of a man. If Mr. Wilson's progressive ideas seemed less lurid and hectic than Teddy's before election, why not be a sport and bear with them even though they loom larger now that the contrasting figure has been removed and the early days of March draw on apace?

#### The Markets.

The tone in iron has been rather dull and grey. Some hardening was evidenced in the latter part of the week and some snappy transactions were witnessed. While these deals showed a fair degree of strength, they should not be given too great weight, for the traders who executed them were merely casting about to feel the temper of the market.

Copper prospects are bright, reflecting the general polishing which most of the merchants indulge in at the close of the year. Some traders were spun out pretty thin, to be sure, yet the metal still remains a good conductor of the pulse of the market.

Tin held its own, as usual, adhering to the rest of the list, particularly sheet steel. Prognostications regarding demand for tin are usually less reliable than for the other metals, because no accurate statistics have been compiled from the census to show the number of tenth-anniversary wedding celebrations that are to take place during the year. Here is an excellent chance for some ingenious spirit to exalt the tin business to a science.

# Hot Water Heating System in a Bakery

Where a Heating Plant Must Be Installed on the Same Floor Level  
With the Radiators the Problem of Circulation is a Serious One

ONE of the most perplexing problems which confronts the heating engineer is to design a hot water heating system which will circulate the water through radiators which must stand on the same level as the boiler, and where neither return pipes nor expansion tank can be placed above or below the rooms in which the remainder of the apparatus is placed.

Fleming's Bakery, 44 Wyoming Ave., Melrose, Mass., is a building which required a heating system in which prob-

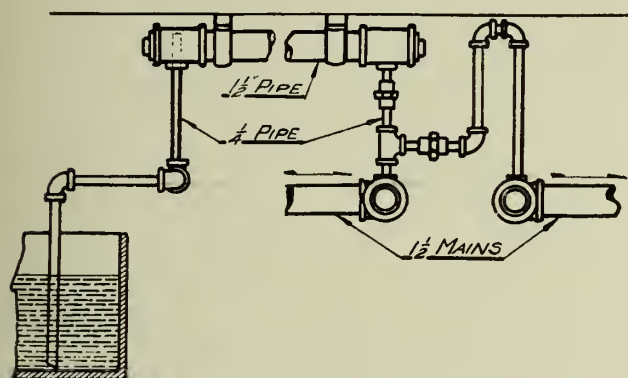


Fig. 1.—Venting and Filling Device.

lems of this character are involved. It is a one-story building with a flat roof and no cellar. The accompanying plans show how the obstacles were overcome.

Figure 4 is a plan of the building showing the heating system as seen from above. Figure 3 shows the system in elevation. The installation was taken care of by Edward E. Parker, Woburn, Mass., who is a genius in the installing of difficult heating plants and who has put in a large number of similar plants in garage buildings and other buildings which had no cellar available for the heating apparatus.

As will be seen by the plan, the water rises from the boiler and flows through a 1½-inch main, hung near the ceiling

the ¼-inch pipes into the piece of plugged 1½-inch pipe which is shown clipped to the ceiling, from thence it is blown out into the bottom of the plumbing supply tank in the toilet room.

When the water rises so high in the system that both legs of the syphon, which connects the mains, are immersed, no more air can be expelled from it, and what is

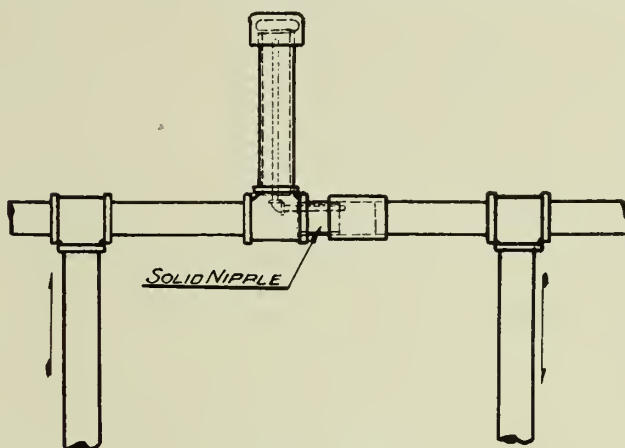


Fig. 2.—Air Trap.

left is forced into the top of the syphon where it effectually prevents the water from short circuiting from one main to the other, while freely permitting any air which may accumulate to pass as before.

When the entire system is filled with water and it begins to flow over into the ball cock tank the bubbling sound ceases, which is the signal to shut off the water. When the fire is started the water expands and what is gained by expansion is forced over into the tank. When it cools, a vacuum is formed, and the necessary water to fill it is sucked up out of the tank to fill the system as before. In time, of course, the water in the heating sys-

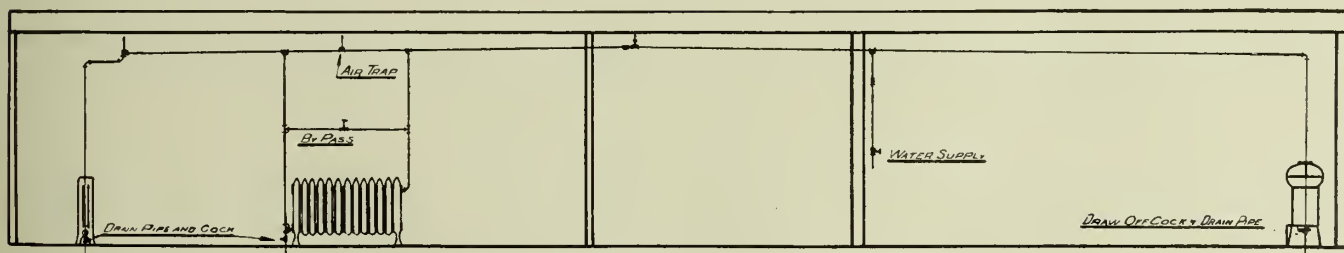


Fig. 3.—Cross Section of Hot Water Heating System in Bakery.

until it nearly reaches the other end of the building, where it turns around and returns to the boiler through a pipe of the same size, and hung at the same level as the other. As will be seen in Figure 3 these mains grade upward from either end of the system, to a point near the middle, where the venting and filling device is attached. This device is shown in Figure 1. It operates as follows: When water is to be supplied to the system, the valve connecting the apparatus with the city supply (see Figure 4), is opened, and as the water flows in it displaces an equal volume of air, which flows out at the highest point in the mains through

tem will part with sufficient air to break the vacuum. When that happens it will be necessary to turn on water and expel the air as before.

The flow pipe to each radiator is ¼ inch. It connects the bottom of the main with the top of the radiator, while the return pipe extends from the bottom of the radiator up into the bottom of the main somewhat further from the boiler, as the water flows. Between these two connections in the main an air trap, Figure 2, is placed. This is a modification of the venting and filling device already described, in that it prevents the passage of water through



the main, while it freely permits the passage of any air which may collect at that point. Its essential features are a nipple, solid except for a  $\frac{1}{8}$ -inch pipe which goes completely through it at the highest point. Under the outlet of the connecting tee, is placed an ell from which the  $\frac{1}{8}$ -inch pipe is carried nearly to the top of the air reservoir formed by the capped pieces of pipe which screw into the tee.

A by-pass with gate valve connects the radiator flow and return pipes, at a height to be conveniently reached.

again and forcing the water after leaving a radiator to ascend to the height from whence it came. Such is not the case. On the contrary the power which moves the water, and consequently the velocity with which it travels, is considerably increased by running the pipes in this direction, rather than by returning to the boiler under the floor, if it were possible.

This apparatus was in successful operation for the winter of 1911-12 and was found to be of ample capacity to heat the front store room of the bakery with the three

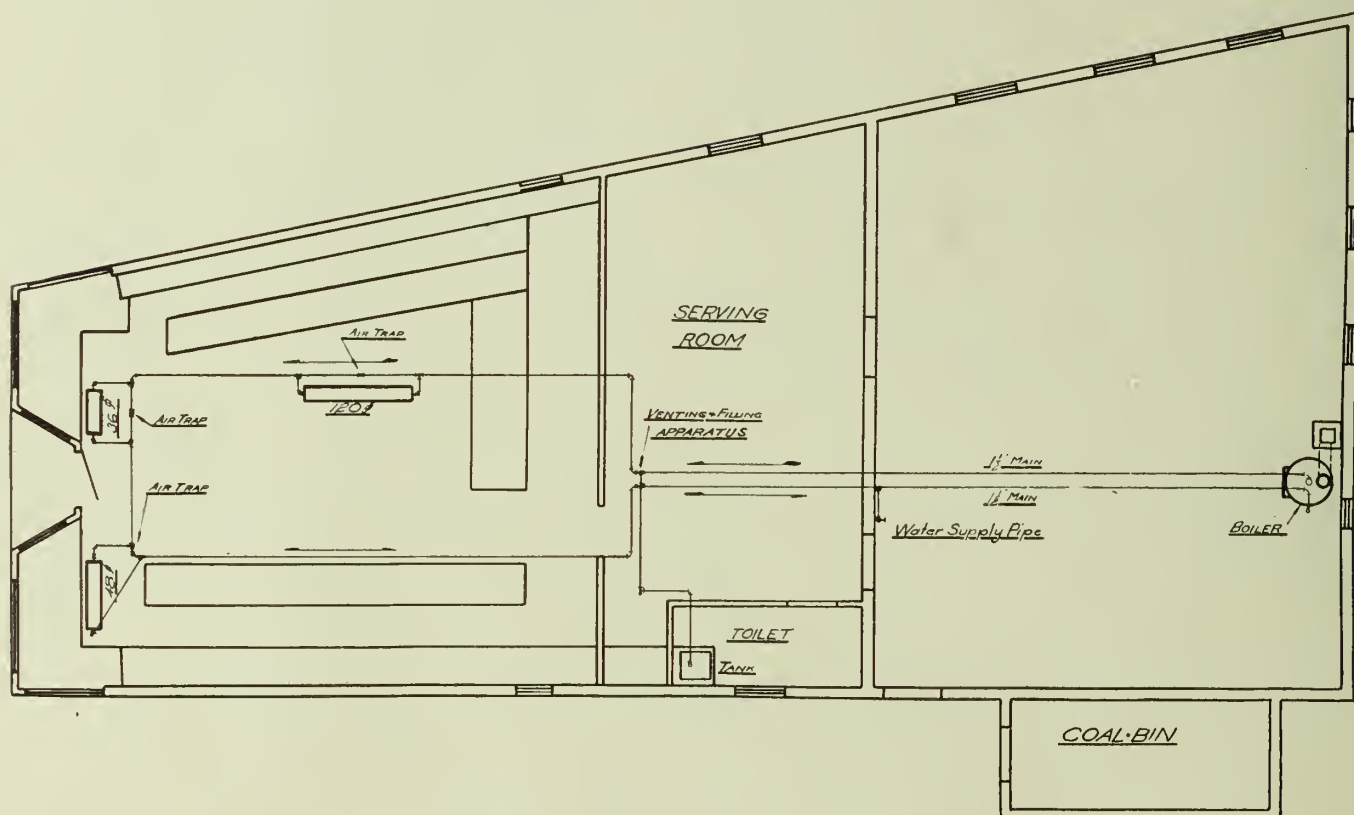


Fig. 4.—Plan of Hot Water Heating System in Bakery.

Opening this valve allows the water to short circuit, and shuts off the radiators. There is a drain pipe leading through the floor from the bottom of the boiler, and from the bottom of each radiator, so that the entire system may be emptied when necessary.

It might be supposed that the motion of the water would be retarded by carrying the return pipe overhead

radiators as shown by plan, which total 204 square feet, the overhead  $1\frac{1}{2}$ -inch supply and return pipes and branches to radiators being in addition. The apparatus according to climatic requirements is operated from 120 degrees minimum temperature to 180 degrees maximum and circulates equally at any temperature carried above the minimum of 120 degrees.

## Grinder Room Ventilation for Paper Mills

The Humidity of the Air in a Pulp Mill Makes the Problem of Ventilation a Difficult One. How One Such Mill Was Ventilated

By Arthur Ritter, M. E.

FOR a number of years paper mill engineers have endeavored to design a satisfactory system of ventilation for grinder rooms in wood pulp paper mills. Several systems have been installed, which include wall coils with an exhaust fan located at the roof.

While fairly good results have been obtained in portions of the room by the use of direct radiation placed along the walls and disc fans for exhaust ventilation located at

different points at the roof line, the conditions of the room as a whole are unsatisfactory.

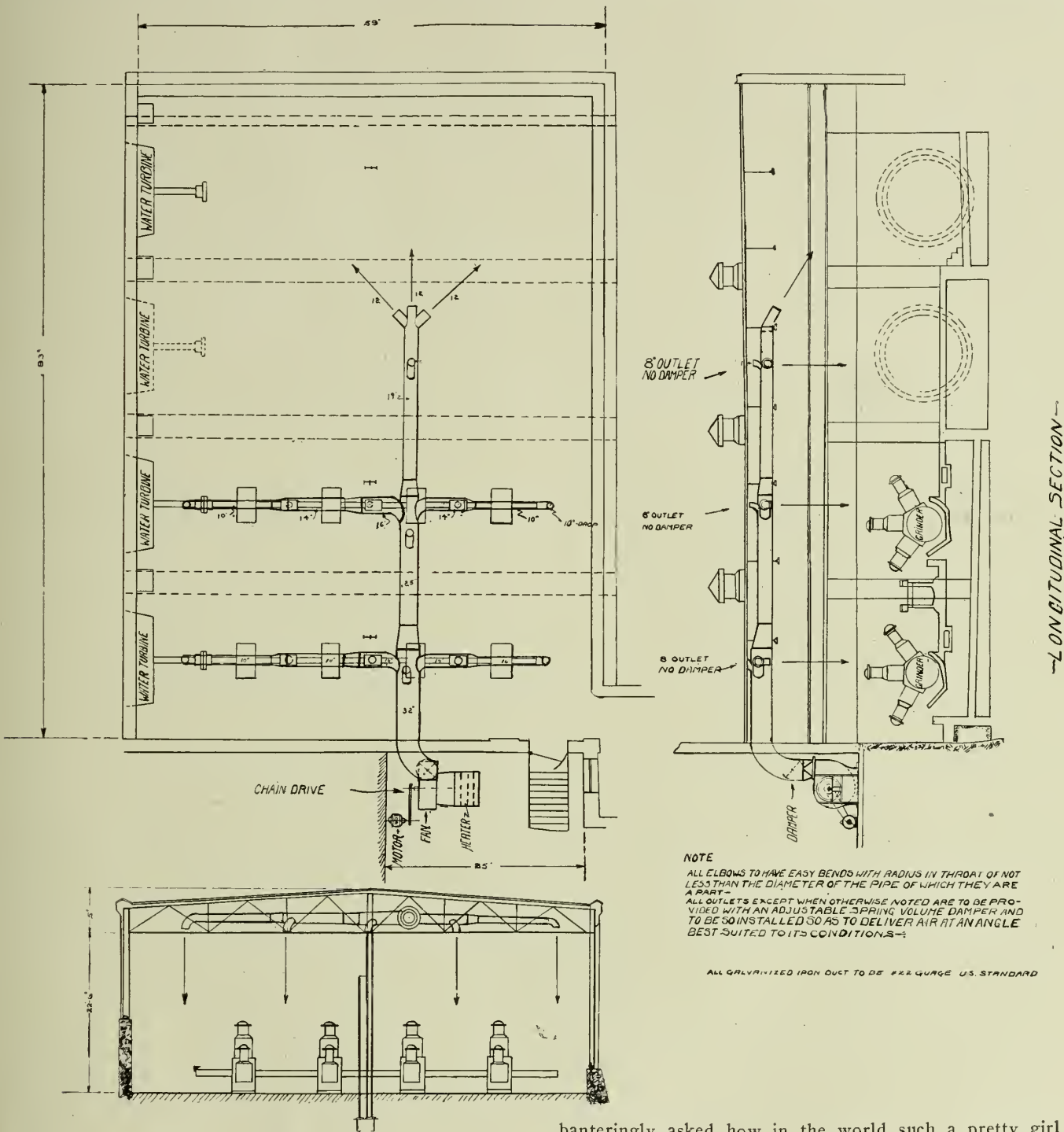
The logs of wood, from which the pulp is obtained, are floated into the grinder room and are thoroughly saturated with water when put in the grinders, each one of which holds three logs at a time. As the logs are fed to the grinders, a heavy vapor or fog is given off, which fills the entire room and rots the roof quickly.

The engineers of the International Paper Co. at its plant at Wilder, Vt., have adopted a method which gives uniformly good results. The installation consists of a fan driven by a  $7\frac{1}{2}$  horse power motor located just outside the grinder room as shown on the accompanying plan. On the inlet side of the fan is placed four sections of regu-

### Feminine Weakness.

A very homely clergyman was severely battered in a railroad wreck, in which he suffered the loss of a foot.

One day, soon after marrying a beautiful woman, the ill-used minister met an old friend on the street, who



Sectional Views of Ventilating System in a Paper Mill.

lar "A. B. C." pipe coils. A system of distributing ducts is connected to the fan outlet, discharging between each grinder, as shown.

The volume of air is equivalent to an air change every 8 to 10 minutes in the room, the temperature being from 125 to 130 degrees F. in zero weather.

banteringly asked how in the world such a pretty girl came to marry him.

"Oh, ladies like remnants!" was the cheerful reply.

*Domestic Engineering says:* The man who makes a habit of calling on his customers, ex-customers and prospects, will pick up many a job he otherwise might miss. You can always figure the customer who has a job to let is going to favor the man who has called upon him, offered him suggestions and given him good counsel. When the other fellow gets the job maybe that's just what *he* did.



# The Business of the Modern Sanitarian

By John Rowe

IN the second chapter of this series it was intended to say something about the "unknown." Upon more mature deliberation this seems to demand a chapter all to itself.

According to present conditions the sanitarian's position in general in the community is indefinite, to say the least. He has no professional standing whatever. Any question involving matters beyond pipes or fittings is generally referred to some board of health, or physician for settlement. While not maintained that the sanitarian should acquire the exact knowledge possessed by the professional gentlemen mentioned, it is a sure thing that all would be greatly benefitted by closer association and exchange of ideas.

Materials, difficulties, methods and manner of installing are some of the points that would come under active discussion. This is a matter to be adjusted by the unknown future.

There is another matter which, perhaps, more closely interests the sanitarian of the present day in as much as it bears directly on every day practices, and that is the great difference in prices for various articles that are used in plumbing and heating.

A loaf of bread, for instance, is sold at the same price, the country over. It has a standard price which is known to all. Take any regular bath room job and submit it to four or five contracting sanitarians for figures on installing. What is the result? A difference of from \$10 to \$40, at least, between the high and low bidder. Any one who is at all familiar with prices, labor and the manner in which the work is figured well knows that this difference comes in part, from the variation in prices at which the goods were bought. It is not all due to mistakes in the time estimated nor "lumping it" upon the contractors part.

We have "standard" threads why not have "standard" prices for goods furnished to the trade? This does not mean a "hold up" for high prices, nor any trust combinations.

Find out a fair living price, one that would yield a reasonable profit, a price that the customer can afford to pay and then keep that price level. This would greatly assist in doing away with all price cutters who are the bane of the trade.

One of the things that so greatly holds back the development of the sanitarian business is that there are so few that possess the ability to look AHEAD. A practical glance into the unknown would appear somewhat as follows:

The Unknown.	Plumbing.	Garbage Disposal Ventilation. Standardization. National Laws and Executives.
	Heating.	Efficiency. Standardization Unity. Cement Buildings.
	Business.	Mail Order Competition. Systemization. Price Cutting Abolished. Vocational Education.
	Representa- tion.	United Action with municipal au- thorities. Political Action.

Now while we know, today, that there has been something said or done about nearly everything mentioned in the foregoing "view," any one who is up with the times on his reading will at once recognize the fact that any definite action leading to active improvements is very similar to the hash of A. Ward, Esq., "in a highly mixed up condition" take the first item, for instance, "garbage disposal." Today it is burned or gathered in wagons at an immense cost and then either piled in heaps to rot or carried out and dumped in some lake or river.

The principal cost is in gathering the garbage. Does any sane man mean to declare that if some large city offered a reward of say \$100,000, that the problem would not be solved in a year's time? There are many schemes and devices for removing odors from toilet rooms and yet the most effective that I have noted in visiting modern institutions is to pull the air up a flue by some means or other.

When one comes to the question of any kind of a standard in plumbing, viewed from almost any angle you choose it will be noticeable for its absence. In the unknown future we may get down to some kind of a basis on these matters but it is certainly way up in the air just at present.

Although the heating of today is not up for discussion, actively, in this series of papers, it will be permitted to say a few words, at times, as in so many instances the heating and the plumbing crafts have so many interests in common.

As for uniformity in plumbing codes there are about as many different codes as there are cities in the country over 50,000 in population. Perhaps more, as the exact records seem to be meager.

A great problem of the future for the craft to deal with is the cement buildings which are rapidly going up in nearly all the principal cities. But the other day the writer heard a prominent plumber (excuse me, "sanitarian," see how the old habit gets us all) remark that it was worth at least 60 per cent more to install plumbing in a cement building than in the usual kinds.

Now this is a future unknown problem that is treading right on the heels of the craft, and must speedily be solved or some of the contractors will be ruined. Glancing at any of the other items listed in this article that have not been dwelt upon, you will find that there is ample room for improvement and that, as such, it is unknown as to the exact extent.

## SYRACUSE MASTER PLUMBERS ELECT OFFICERS.

At the regular meeting of the Master Plumbers' Association of Syracuse, N. Y., held Tuesday evening, January 7th, the following officers were elected for the year 1913: August Schall, president; E. B. Dunkerton, vice-president; B. Jos. O'Donnell, secretary; Wm. Drexler, treasurer; John Lavelle, sergeant-at-arms.

### Qualifications of a Lady.

Hotel Proprietor (at fashionable resort)—Shall I introduce you to some of the women who are living here?

Mrs. Parvenu (sadly)—No, thank you. I cannot smoke cigarettes, drink cocktails, play cards for money or talk politics. I am not a lady.—Life.

# Selection and Use of Check Valves

By W. H. Wakeman

**F**IGURE 1 illustrates part of the brick setting of a tubular boiler known as No. 2 in my plant of five similar boilers. It also shows part of the feed pipe which I installed several years ago. Water flows through this pipe as indicated by arrows, from the main feed line on the fronts, passing over the top, turning downward and entering at the rear. This is an old fashioned arrangement which cannot be changed conveniently at the present time, so far as feeding at the rear is concerned.

Two 54 deg. ells are shown, followed by a swing check valve, which gives a straight passage for water. These fittings and the check valve are all for  $1\frac{1}{2}$  in. pipe. One day it was necessary to feed into another boiler with about 20 lb. less pressure. Following the usual custom, the feed valve on this boiler was opened. This action should have closed the check valve shown in Fig. 1, but it did not, hence water was forced out of this boiler into the other at a rapid rate. However the fireman discovered it before the low water alarm whistle blew.

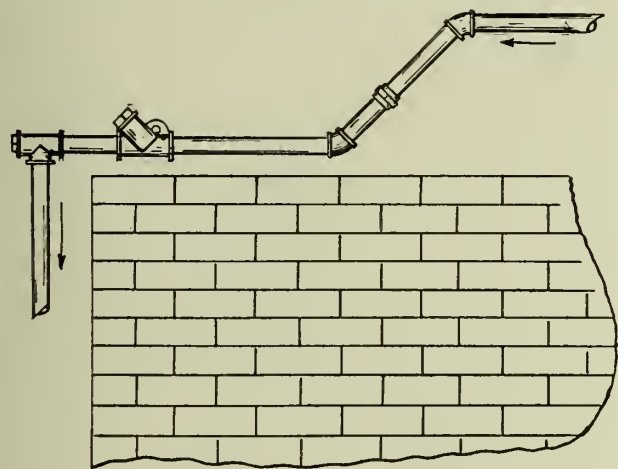


Fig. 1.

Of course this is a dangerous condition and I proceeded to change the arrangement as soon as possible. Fig. 2 shows the improvement made, which is described as follows: The 45 deg. ells were taken out and the pipe laid horizontally, but it was a little higher above the brick work than it appears in the illustration. A  $1\frac{1}{2} \times 2$  in. ell was used at 2 followed by a short nipple, and a 2 in. angle check valve. The horizontal pipe which follows is 2 in. and the ell at 3 is  $2 \times 1\frac{1}{2}$  in. thus bringing it down to the original size. When describing a lay out of piping, I intend always to follow it out, in the direction that steam, (or anything else for which it is used,) flows, as this seems to be the only logical plan. Failure to observe this rule on the part of other engineers has caused slight misunderstandings, hence it is better to adopt and observe one rule for this purpose.

This arrangement works well in practice, and does not create excessive friction as water travels through the pipes, and I wish to call attention to a few points in this connection, as otherwise they may not be appreciated. When the idea of using an angle check valve in what would otherwise be a straight line, is advanced it appears as if there would be more right angle turns than is necessary. Let us carefully examine the conditions and see if this

is true, and at the same time review reasons for taking out swing check valves.

Fig. 3 is a sectional view of the swing check valve shown in Fig. 1. Ten days before the above mentioned accident happened, the seat of this valve was examined and found

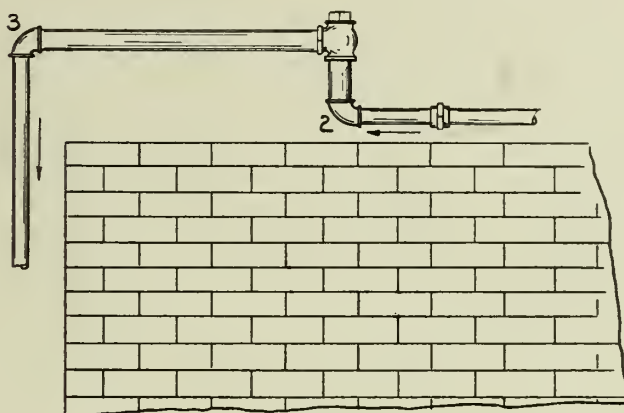


Fig. 2.

in perfect order. A new hard rubber disk was put in the disk holder, and the hinged part worked perfectly, so far as opening and closing is concerned, but the fact that it allowed water to rush backward through it shows conclusively that it did not seat properly, and having done this once it is proper to assume that it will do the same again. For this reason it was removed.

A globe check valve is not liable to develop this defect in operation, as Fig. 4 shows that the movable internal part moves between rigid guides which do not allow it to swerve from a true course, hence it must seat properly.

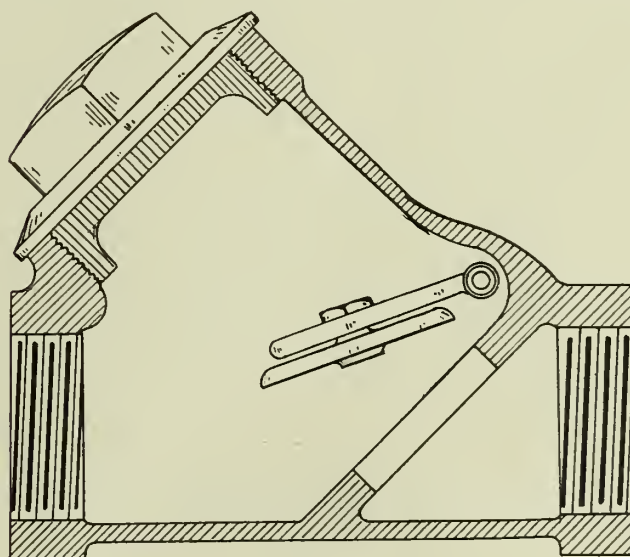


Fig. 3.

The arrows show that when water is forced through this valve, it makes three right angle turns, and furthermore, the movable part forms an obstruction which causes excessive friction, and greatly reduces the capacity of the valve. The latter may be partially overcome by using a valve one size larger than the pipe, and screwing a bush-



ing into each end, but this appears very crude and unsatisfactory.

Again referring to Fig. 2 the  $1\frac{1}{2} \times 2$  in. ell at 2 forms a free and easy turn for the water, which is also true of the  $2 \times 1\frac{1}{2}$  in. ell at 3. Concerning the angle check valve between these two ells, in the first place it is one size

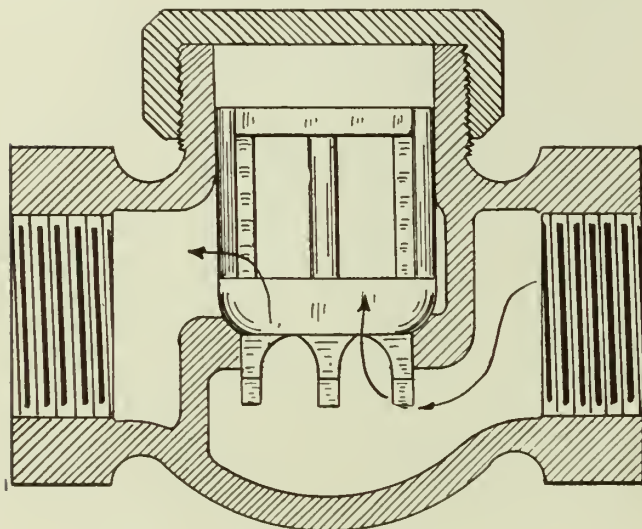


Fig. 4.

larger than the pipe line, which is a valuable point in its favor, but owing to the workmanlike manner in which the line is enlarged at 2 and reduced at 3, the whole gives a very satisfactory appearance. Fig. 5 is a sectional view of this valve, and it demonstrates that it causes water to make but one right angle turn, which is practically free from obstruction, as the guide for the valve stem does not reduce the area below the capacity of  $1\frac{1}{2}$  in. pipe.

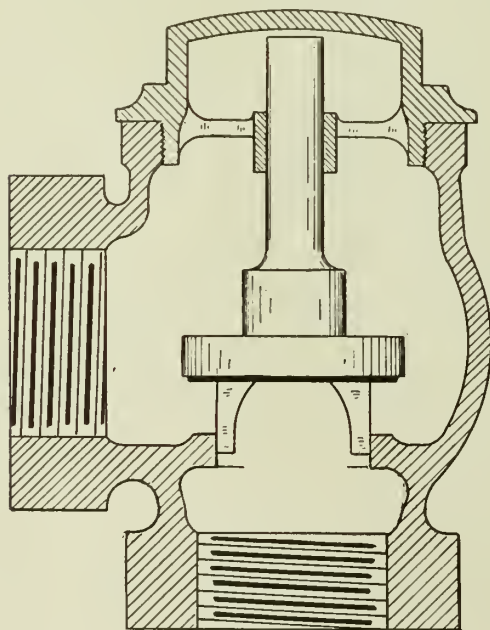


Fig. 5.

The whole may be summed up as follows: It was decided to take out the swing-check valve shown in Fig. 1. If a globe check valve had been substituted, there would be three more right angle turns. In Fig. 2, two right angle turns are substituted for two 45 deg. turns in Fig. 1, but the advantages explained are sufficient to warrant

the change, and the angle check valve will always seat perfectly in service.

Changing the check valve as described, made it necessary to lengthen the vertical pipe. This might have been done by using a coupling and a short piece of pipe, but that is a poor plan. By using machine cut threads or by taking extra care in cutting them by hand, it is possible to avoid a crooked pipe, but even the best joint that it is possible to make, is not as strong when new as straight pipe, and when corrosion begins its work, it is sure to appear in the threads first. On this account and also on general principles, it is better to remove the old pipe and put in a new piece cut the right length to make a workmanlike job. Of course the pipe can be patched, provided there is none on hand of sufficient length to answer the purpose. There would not be lack of such stock in a steamfitter's shop, but around a manufacturing plant where pipe is only occasionally used, a full assortment is not always carried. There seems to be no good reason why a small stock of the different sizes that are commonly used should not always be found in the rack. The expense of such a plan is not heavy, and when a pipe fails and must be repaired during the night, or on Sunday, it is disgusting to find that there is no stock on hand for the job.

#### CHEER UP.

If you have an old lead dime,  
Pass it on.  
Do not fuss and waste good time;  
Pass it on.  
You may feel that mean, it's true,  
But in just a week or two  
It will come right back to you—  
Pass it on.

—Cincinnati Enquirer.

If you have a cure for grip,  
Pass it on.  
Do not let your chances slip;  
Pass it on.  
Never fear that you'll forget  
The prescription that's your pet;  
'Twill drift back to you, you bet!  
Pass it on.

—Denver Republican.

If you have a good umbrell',  
Pass it on.  
'Tisn't yours, you know full well;  
Pass it on.  
If you know just where you got it,  
From your recollection blot it;  
Some wet day the owner'll spot it.  
Pass it on.

—The Chicago Tribune.

If you have a Thomas cat,  
Pass it on.  
Turn it out and holler "scat";  
Pass it on.  
Though some kinder soul may feed it,  
Though some neighbor's child may need it,  
Back to you some fate will lead it—  
Pass it on.

—Domestic Engineering.

Randall: "Was Spratt a popular man?"  
"Popular! The only mourner at his funeral was the insurance company."—"Life."

# Two Ways to Conduct a Plumbing Business

## One Way.

*New Customer:*—Mr. Plumber I have a leak in my cellar, can you send a man up to fix it?

*Plumber:*—Certainly, I'll have someone go up at once.

\* \* \* \*

*New Customer:*—(two hours later on 'phone). Mr. Plumber, no one has arrived at the house yet.

*Plumber:*—The man is on his way up there now, Mr. Customer.

\* \* \* \*

*New Customer:*—(Four hours later on 'phone). No one has arrived yet, Mr. Plumber, and the water is spreading all over the cellar and doing a lot of damage!

*Plumber:*—Well, my man went to the wrong address and has just come back. I'll send him up right away. Goodbye!



*Plumber:*—(to his repair man). Guess you better jolly up towards Mr. New Customer's house and get there in time so as to shut off his water to-night; then you can make an all-day job out of it to-morrow, because there isn't much to do around here now.

\* \* \* \*

*Customer:*—How is it, Mr. Plumber that you put a "Skato" water closet in my bathroom when I told you I wanted an "Old Reliable?"

*Plumber:*—Well you see, Mr. Customer, the supply house was all out of the "Old Reliable" and couldn't get any for two months so I thought you wouldn't mind if I put in a "Skato"—it's

every bit as good, will last just as long, and is in every way just as satisfactory.

*Customer:*—Are they made of the same ware and shape?

*Plumber:*—Why the only difference is that one is porcelain and the other is porcelain enameled.

*Customer:*—Well just what is the difference between the porcelain and the porcelain enameled?

*Plumber:*—Why, the porcelain enameled is porcelain put on a cast iron base while a plain porcelain closet is simply porcelain all the way through. Now you know cast iron is much stronger than a china plate and I think you will be much better satisfied with the "Skato" porcelain enameled closet than you would ever be with an "Old Reliable" porcelain one which might chip if anything were dropped on it.

*Customer:*—(doubtfully). Well if you think so—

*Plumber:*—I'm sure of it Mr. Customer!

\* \* \* \*

*Customer:*—(six months later). Do you know, Mr. Plumber, that "Skato" water closet is beginning to show cracks and yellow streaks like iron rust?

*Plumber:*—Well that's a failing that "Skato" closets have and the only thing you can do is just to put in a new bowl.

*Customer:*—In that case I think I'll let Mr. Truthful up the street do the work as he probably will get me an "Old Reliable" if I tell him that is what I want.

## Another Way.

*New Customer:*—Mr. Plumber I have a leak in my cellar, can you send a man up to fix it?

*Plumber:*—Certainly, I'll have someone go up at once.

*Plumber:*—(to his repair man). Beat it up to Mr. New Customer's house right away and take a few washers, tees and ells with you and see if you can't fix him up and get right back here just as fast as you can.

\* \* \* \*

*New Customer:*—(two hours later on 'phone). Your man has just stopped the leak Mr. Plumber and I am much obliged for your prompt service. I would like to drop in some time this week and talk over with you the plumbing work in my new house that I contemplate building. I want a plumber who is prompt and efficient and who will not delay work by loitering.

*Plumber:*—Thank you very much, Mr. New Customer, I shall be most pleased to see you in regard to your new house at any time.

*Customer:*—How is it, Mr. Plumber, that you haven't put in my "Old Reliable" water closet?

*Plumber:*—Well, you see, Mr. Customer, there is a great demand for these closets and I have been waiting for the supply house to get me one. They say this will take about two months from the time I put the order in, but I thought you would rather wait even six weeks longer, if necessary, in order to have the job done right. Of course there are many



inferior closets I could put in and you might not know the difference for a long time but ultimately you would be dissatisfied. Rather than do a job that way I would take the risk of losing the work. If you are going to have a cheap and unsatisfactory closet installed I would rather it would be some one else besides me that does the work. That would mean that even though I might lose this little job you probably would be dissatisfied and come to me ultimately whereas if I put in an unsatisfactory closet you would end up by turning to some other plumber. I handle only first-class materials and guarantee my work. I have found that this has helped me to secure a better class of customers.

*Customer:*—Well I'm much obliged for your frankness, I guess you needn't worry about losing the job. After this when I hear some people telling how all plumbers are thieves and robbers I will take pleasure in referring them to you as one honest man in the plumbing business. You know a little recommendation from a disinterested party is worth more than a whole lot of sounding your own praises.

*Plumber:*—I fully realize that, sir, and that is why I believe that in the long run reliability, honesty and frankness are the only methods by which a good business can be built up.



### MOTOR TRUCKS IN STRANGE FORMS.

American ingenuity has seized upon the motor truck for further expression of its remarkable versatility. It is constantly producing new and interesting forms of special purpose power vehicles for the most diversified uses, adapting them to the particular conditions that affect every line of business that has need for much hauling or delivery work.

Among recent developments, there are several types of motor dump trucks for use by contractors, coal dealers and others who handle granular material in bulk. These are so made that the body, together with its load of from three to seven tons, can be raised at the front end and the contents spilled out on the ground in less than a minute, or allowed to slide through a chute into a coal hole without handling a pound with a shovel. Some are operated by compressed air or chains, with power furnished by the same engine that propels the vehicle, and the tailboard opens and closes automatically, so that it is not even necessary for the driver to leave his seat.

A one-wheeled motor tractor is another new idea. It is a 40-horse-power automobile designed to be attached to any heavy horse-drawn vehicle in place of the team. It has a pair of drive chains and sprockets to be bolted to the regular front wheels of the wagon, and spring seats and distance rods to be bolted to the front axle. This has hauled nine tons at a speed of twenty miles an hour and climbed a 12 per cent grade with it. It has turned a 57-foot hook and ladder fire truck completely around in a thirty-foot street.

Fire department officials are most interested now in the development of motor pumping engines. A European type is being introduced this winter in which the men sit back to back on lengthwise seats to which they mount from both sides instead of from the rear, as in the American type of hose wagon. It has a 50-horse-power engine that can be connected to a powerful rotary water pump over the rear axle immediately on reaching the scene of the fire. An improved American fire engine that is described as a "whole fire department in itself" has a two cylinder reciprocating pump behind the driver's seat that can throw 600 gallons a minute when driven by the 60 horse-power motor.

From fire departments to freight houses and industrial plants is a wide gap easily bridged by American inventors. There has been brought out an electrical freight truck of one ton capacity intended to take the place of the hand trucks so generally used in freight houses, factories, passenger stations, etc. It has a platform only about two feet above the ground and four feet wide by six feet long. The operator stands on a step at the front end, facing forward, and controls the movements by two levers and a brake pedal. The truck can be taken on any ordinary elevator to different floor levels.

For army service a water purifying wagon has been devised. It is a real curiosity, with a skeleton body consisting of tanks and pipes. The engine that drives the vehicle is utilized to pump water from a pond, stream, well or other common source, and force it through clay filters. This water wagon can supply 500 gallons of clarified water per hour.

Various styles of lumber trucks have been produced to facilitate loading and unloading. Most of these are so made that upon releasing a pair of iron rollers the whole load of three to seven tons will roll back over the rear end and be deposited on the ground.

In fact, everything possible is done by designers to enable the user of a motor truck to save time in the loading and unloading processes.

### MAKING COLLECTIONS.

Reprint from "The Leaderite," published by the Leader Iron Works, Decatur, Ill.

There is more to making collections than appears on the surface. In fact, one of the solid rocks on which any business should be founded and conducted is that of prompt invoicing and collecting.

No good business man likes to receive a shipment of goods and six months later get an invoice for them. Claims of any kind are then too late to adjust. In the plumbing business in particular there are so many chances for extras on almost every job, that the saving of your time and your customer's temper by prompt adjustment of such charges, is often worth more than taking additional contracts. When adjustment of the various items of a bill is made while the matter is fresh in mind, it is easy to arrive at the invoice price and have it settled for good.

You know how we all like to procrastinate on an unpleasant duty, no matter what it is. We do everything else first—dread to approach the settling of claims—put it off till a more convenient time, and too often neglect a duty that undoubtedly works the greatest detriment of all to a firm or individual's credit; that of answering letters in regard to a due account.

There is hardly a merchant who doesn't want to turn over his billing and his collecting to someone else—wants to put off "The time of accounting."

Along with the matter of giving credit is that of getting the money when the credit has been extended. Waiting for the customer to come to the office to "Settle up" is not always the surest way to get the wherewithal for the inevitable Saturday payroll.

Many contractors today, even though this business is of such a nature that payments drag more or less, make it a point to collect at every possible opportunity. Many times money is held back by the owner on account of some minor thing that could be fixed by the contractor in half an hour with possibly little or no expense, yet perhaps it has held up several hundred dollars. The plan of securing bankable notes for contract work when the customer cannot pay cash is a mighty good way of avoiding a lot of extra work and listening to many excuses, when you ask them for money. You will observe that any installation works better after it has been paid for.

While the matter of allowing a cash discount is not considered customary in the trade, it has its advantages in many cases.

Next to getting the contract, getting the money when it is due, is one of the surest ways to successfully conduct a plumbing business and be able to retire with a competence.

### Any Way He Liked.

A man who was entirely bald, except for a rim of hair just above his collar line, went into a barber shop and asked: "I'm in a great hurry; can't you cut my hair with my collar on?"

"Sure," said the barber; "I can cut it with your hat on, too, if you like."

# LEGAL DECISIONS

## Rights Against Mortgages.

In an action brought to foreclose a purchase-money mortgage, the Second Appellate Division of the Supreme Court of New York says that companies defendant had, subsequent to the mortgage, furnished plumbing, mantels, and mirrors used in the construction of certain houses upon the premises covered by the mortgage; but these materials had been placed under contracts of conditional sale, which contracts were duly recorded according to law, and the question presented was whether the plaintiff was entitled to hold these materials as a part of the mortgage security, or whether they belonged to the appealing defendants.

In so far as the claim of one of the companies was concerned, the court says, in *Astor Mortgage Co. vs. Milton Construction Co.*, 136 New York Supplement, 82, that it could not be distinguished from the case of *Barwin Realty Co. vs. Union Stove Works*, 130 N. Y. Supp. 781, and the judgment in so far as it cut off said company should, of course, be reversed.

The only distinction affecting the other company was that, while its original conditional contract was duly filed, as required by law, and was on record at the time of the commencement of the action, it appeared that the same was not redocketed at the end of the year, and during the pendency of the action. But just how this could operate to give the plaintiff a right to take materials which belonged to the defendant company at the time the action was commenced does not occur to the court. The litigation related to the facts as they existed when the action was commenced, and, at that time, the defendant had not parted with title. Being a party to the action, the defendant was not called upon to redocket its conditional sales contract to preserve its rights, for title could not vest in the construction company under the contract in any event, though a third party, dealing with that company without notice of the conditional contract, might gain rights which could not be divested.

## Person Not a Plumber Having Sign.

The City's Magistrates' Court of New York City says, in *People vs. Stam*, 136 New York Supplement, 160, that, by the provisions of chapter 803 of the Laws of 1896, no person shall expose the sign of "Plumber" or "Plumbing," or a sign containing words of similar import and meaning, in the city of New York, without first having obtained a certificate of competency from the Examining Board of Plumbers.

The defendant conceded that he was not a licensed plumber; but, nevertheless, he exposed at his workshop a sign containing the words "Stam Bros., Sheet Metal Work, Plumbing, Roofing, and Gas-Fitting." It was true that the word "Supplies" seemed to have been printed on the show window of his place of business; but its size and relation to the objectionable matter was of such a character as to force the conclusion that it was placed at a remote spot, with no other object in view than that it would tend to deceive and in a measure evade the law.

The defendant admitted that he was not a plumber, and claimed that he was not engaged in that business, trade, or calling, and that it had not been proven that he contracted for, or attempted to perform, work of such a business or incident to that trade. For such reasons he contended that he was entitled to a dismissal of the complaint under the authority of *People vs. O'Connell*, 36 N. Y. Supp. 1092. But the case cited was not applicable. There the defendant, the chief engineer of a hotel, who had hired plumbers and steamfitters to do work over which he had supervision and direction, was held not to be engaged in the trade, business, or calling of a plumber or plumbing.

The question of sign posting, as was concededly done in the case at bar, was not presented to the court in the *O'Connell* case. Here the defendant's placing and maintaining of the sign, with the word "Plumbing," was charged as a violation of the statute. Section 1 of the act under which this prosecution was commenced makes it incumbent upon every "employing or master plumber carrying on his trade, business or calling in the city of New York" to register annually. Section 6, relating only to section 1 above, defines an "employing or master plumber" as one who hires or employs a person to do plumbing work. These provisions were the subject of construction in the *O'Connell* case. It is therefore obvious that these sections of the law in question in no wise relate to the provisions which prohibit the exposing of the sign of "Plumber," or "Plumbing," or a sign containing words of some similar import and meaning, unless certain conditions are met.

## Damages For Breach of Warranty.

In an action brought to recover the agreed price of apparatus installed in a tinning shop, which apparatus had been warranted to "change the air in the tinning room completely about once every two minutes," the Appellate Term of the Supreme Court of New York says, in *Manufacturer vs. Dairymen's Mfg. Co.*, 136 New York Supplement, 66, that, on the issue of fact raised by the defendant's claim that the apparatus failed to operate as warranted, the trial judge was entirely justified in finding in the defendant's favor; and, the defendant having interposed a counterclaim, based, apparently, on the difference in value between the article as delivered and as warranted, evidence offered by it to prove this difference of value was erroneously excluded.

## Train or Wife?

"What's your hurry, old man? It's early yet; the night is young," said one at the smoker.

"I know," said the suburbanite, "but my wife is sitting up for me, and if I miss the last train I shall catch it."

## What Was the Matter with Moses?

"Miss Jane, did Moses have the same after-dinner complaint my papa's got?" asked Percy of his governess.

"Gracious me, Percy. Whatever do you mean, my dear?"

"Well, it says here that the Lord gave Moses two tablets."



### THE SPECTATOR.

The Spectator occasionally has the pleasure of filling an extra chair at a big round table which is so generously endowed by the brothers of the pipe and tongs as to gain for it, amongst the patrons and waiters of the comfortable old German restaurant which houses it, the reputation of a perpetual institution.

There is a fine flavored atmosphere hovering about that round table. Fine flavors, to be sure, distinguish every joint and sirloin that comes smoking from the grill in that famous caravansary and these, mingling in pleasant proportions, produce an aromatic atmosphere which seeps through the doors and casements to serve itself up generously as an appetizer, tempting the passer-by to enter. But this atmosphere is a mere outer blanket to that which envelops the round-table. It is animal and vegetable perhaps but the atmosphere of the round-table is permeated by the pure gold of friendliness and good-will. No dross is allowed to enter there. Talk drifts on amiably, hops about spiritedly, bristling with good-humored satire or, on Mondays or the day after holidays, sometimes lapses altogether. None feels called upon to prove his title as an entertainer or bon vivant, nor is it likely that for two consecutive appearances anyone will fail to contribute his full share for the amusement or edification of the circle. Conventionalities are laid aside; not by violating them after the manner of the unfamiliar but by a subtle intimation that their presence will more fittingly grace some other occasion. Hobby-horses stand hitched to the backs of chairs, each champing his bit, eager to be showing his paces for as many turns around the circle as may be, before the others crowd him out. Ben Franklin may have the ear of Izaak Walton, by which the latter might well be guided to greater prosperity through thriftiness, were it not that Izaak is so intent upon his turn;—having in mind great counsel as to what are best thoughts to indulge in while waiting for a land-locked salmon to get up an appetite for a Scarlet Ibez—that all Ben's sage advice trickles futilely out of his other ear. In like manner, Henry George is anxious to prove the excellencies of an economic system that knows fewer tax-collectors, but Charles Darwin can't see the logic of bickering over human systems until the humans themselves are reasonably accounted for, and all the time crafty old Voltaire is biding the moment when the trend of discourse may hit upon a lighter vein which shall be the good conductor for a bit of spicy gossip that's fairly dripping from his tongue.

Thus daily do these arch-competitors lay aside the masks which proclaim them heating and plumbing contractors to the world, and checking them with their hats and overcoats, sit for an hour or two in their true identities about the round-table. Yet the unmasking demands no servile limitation of topics discussed. Business, if pruned of all personal offshoots and underbrush, is frequently—as it was, to the Spectator's great delight, on his last visit—a popular topic of general comment. Someone tossed into the arena the statement that the demand for first-class engineers from the scientific schools was growing less and less each year. Several forsook their soup long enough to express astonishment and to call for whys and wherefores. The speaker went on with his own soup undisturbed by the onslaught. Finally becoming satisfied that what remained was unattainable with the tools at hand, he continued,—“Well, I'm not responsible for that statement. I haven't any statistics to offer, but I have a friend”—and then he went on to tell that this friend who is employed by a big corporation always

requiring a corps of engineers, had been instructed by the management to reorganize the whole engineering department because they had discovered the need for fewer men of higher ability. The answer, according to this friend, was specialization and organization. Specialization was no longer content with classifications such as, Electrical, Mechanical and Structural, for instance. Closer specialization became necessary as a direct result of greater organization. Men to specialize in subdivisions of those main branches were coming more into demand as a consequence. Obviously their responsibilities were lessened in proportion to the number of sub-divisions and obviously, to perform less onerous duties they required less technical training. Through this organization and specialization one highly trained engineer could do the work formerly done by ten. The speaker then hazarded the guess on his own account that employers of engineers would not be likely to maintain ten on the pay-roll if one would suffice.

“Well, I think that is altogether a good state of affairs,” broke in Charles Darwin. “It affords openings for a host of under-studies and they have only to develop themselves in their work to become equal to the man at the top. It's a fine chance, to work out the theory of the survival of the fittest.”

“On the other hand,” said Ben Franklin, “I see the great advantage to the employers. There should be a tremendous reduction in their pay-rolls. A penny saved is a penny earned, you know.”

So, while the waiter fetched and carried, the ball of contention was good naturedly batted about. Some lined up with Charles Darwin, others from force of frugal habits stuck close to Ben Franklin. The chaff became inextricably mixed with the wheat, the dice-box started upon its quest of him who should pay for the cigars and even now, while the scene and much of the conversation is fresh in mind, the Spectator is not sure that he knows a great deal about the diminishing demand for highly trained engineers, but he does know that there is a fine old flavor of good-fellowship about the round-table.

### NEWARK, N. J., MASTER PLUMBERS WILL HOLD ANNUAL BANQUET.

The Master Plumbers' Association, of Newark, N. J., has issued invitations to its annual banquet and ladies' night, to be held at L. Achtelstetter's, 844 Broad street, Newark, on Thursday evening, January 30, 1913. Following the banquet, the evening will be spent in various entertainment and dancing. F. J. Sturn, treasurer, 43 Hill street, Newark, is at the head of the affair.

### INSTALLATION OF NEW OFFICERS OF MASTER PLUMBERS' ASSOCIATION AT ORANGE, N. J.

At the January meeting of the Master Plumbers' Association of the Oranges, held at Masonic Temple, Orange, N. J., the following officers were installed by Past-President Wm. F. Beck: President, Andrew C. Chalmers; vice-president, Otto C. Miller; secretary, Edson Garbrant; financial secretary, Wm. A. Allen; sergeant-at-arms, Hunter Lindsay; treasurer, Geo. H. Werner; trustees, S. F. Gibbons, A. R. Milne and Chas. E. Harrison.

The reports of the officers for 1912 were approved, and they showed the association to be in a most flourishing condition. F. W. Miller, who for many years conducted a plumbing and heating business in the Oranges, and has retired from the firm of F. W. Miller & Son, was elected an honorary member of the association by unanimous vote.

# Questions and Answers

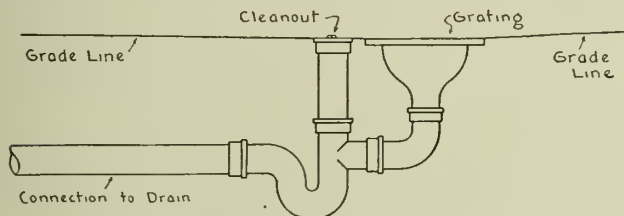
## HOW SHOULD A YARD DRAIN BE CONNECTED?

Editor "Domestic Engineering."—Will you kindly publish in your next issue an illustration and description of a yard drain, with connections?

San Francisco, Cal.

Plumber.

As requested by "Plumber" we present here an illustration of a yard drain, which we think is properly constructed.



Sketch Showing How to Connect a Yard Drain.

This method provides ample means for getting into the trap in the event of a stoppage, an advantage which all yard, area and cellar drains do not possess.

## A QUESTION ABOUT WATER HEATING.

Editor "Domestic Engineering."—We have heard of some kind of attachment for heating water for the kitchen boiler by steam taken from the heating main of the house. Can you tell us anything about the operation of such attachment?

Boston, Mass.

G. and D.

If we understand "G. and D.'s" question, we believe we can give him the information asked for.

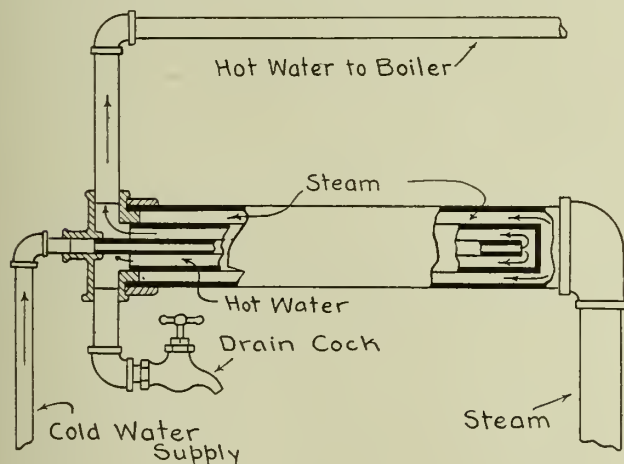


Fig. 1.

There are several devices on the market of this nature, and in Fig. 1 we give a view which will make the operation clear. In Fig. 2 the heating attachment is shown connected to the boiler.

Referring to Fig. 1, the steam enters the outer cylinder, and in contact with the inner cylinder, which contains water, heats the latter, which then rises through

the hot water connection, and is carried into the boiler, just as in the case of the ordinary range connection.

The cold water supply is carried to the further end of the inner cylinder and delivered into the latter, which has a closed end.

In Fig. 2 it will be observed that the cold water supply to the steam heater is taken from the bottom of

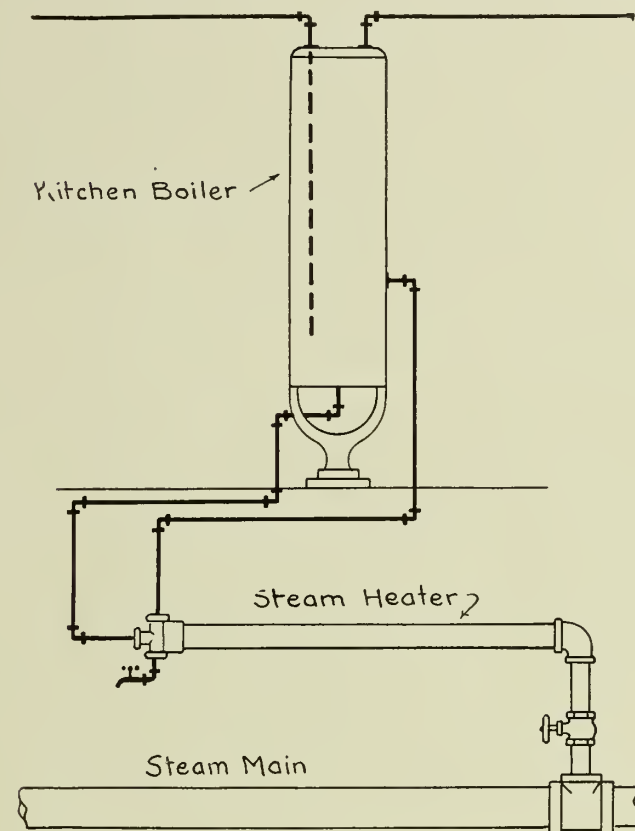


Fig. 2.

the boiler, the heat acting as the water front of a range. The action of this device is positive, and it produces excellent results. It may also be used independent of the boiler, as an instantaneous heater.

## WANTS INFORMATION ABOUT WIPING SOLDER.

Editor, "Domestic Engineering":—Please give me what information you can on these two questions:

1. What is the best way to clean wiping solder?
2. Is it good for wiping solder to dip brass work into it?

Youngstown, O.

Apprentice.

In cleaning wiping solder, it should first be heated to a mild red heat, which will burn out the impurities. While this is going on, throw into the solder a lump of sulphur, and keep it continually stirred. The sulphur collects the dross and impurities which have been burned out and brings them to the top of the pot, from which they should be skimmed off.

After the above has been followed out, throw into the solder some powdered rosin or some tallow, this being done to burn out the sulphur.

Heating the solder so hot will of course burn out some of the tin, and thus leave the solder too coarse. It should therefore be brought back to good condition by the addition of tin to meet the requirements of the



workman who is to use the solder. If this process does not sufficiently purify the solder, it should be repeated.

It is bad for wiping solder to dip brass work into it, for the reason that brass contains zinc and zinc acts very badly on wiping solder. One of the chief causes of poor solder is this practice of dipping or tinning brass work in the wiping solder.

### A HOT WATER HEATING PROBLEM.

Editor "Domestic Engineering":—Enclosed please find plan of three 30 gal. boilers; one in basement alongside of the heating boiler, the other two in flats on upper

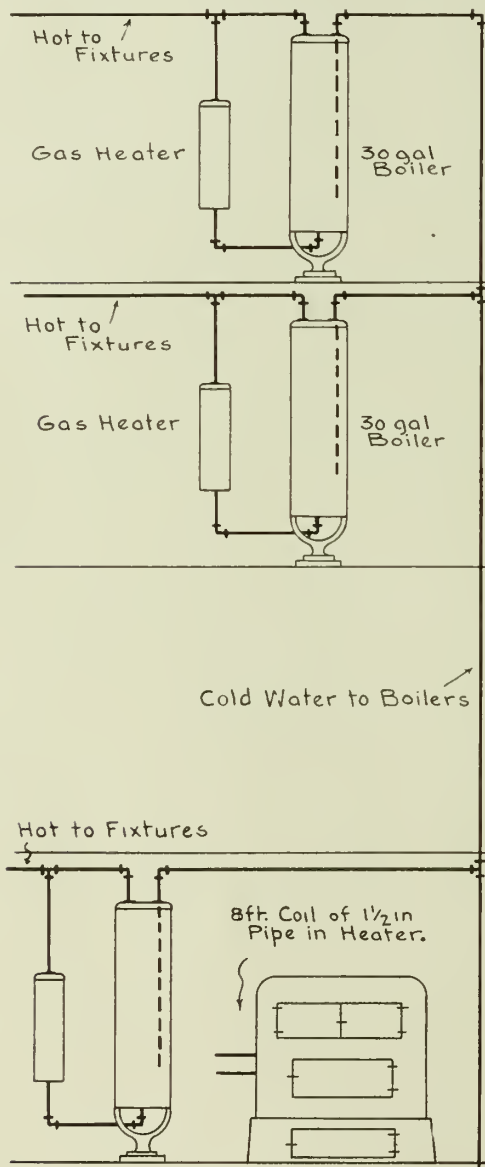


Fig. 1.

floors. Each boiler has a separate gas heater. There is a  $1\frac{1}{2}$  in. pipe coil 8 ft. long in the furnace.

Could you give any information in regards to connecting the three boilers on to this one coil so it will work satisfactory?

Saginaw, Mich.

L. J.

Fig. 1 shows the proposition which confronts correspondent. There are three boilers supplying three separate flats, and it is proposed to heat each boiler from a coil

placed in the heater. We presume the latter is for winter use, and the gas heaters for summer.

Fig. 2 shows the way we would propose for heating the three boilers. If the flow pipe from the coil were run straight up, with direct branches from same into the boilers, the top boiler would probably get more than its share of the hot water, and the lower boilers less than their share. To avoid this, the connection at X is made, which favors the lower of the two boilers on the upper floors. This connection is often used for the same purpose in heating.

It is possible that it may be advisable to put a valve on the flow connection to each boiler, in order to cut out a

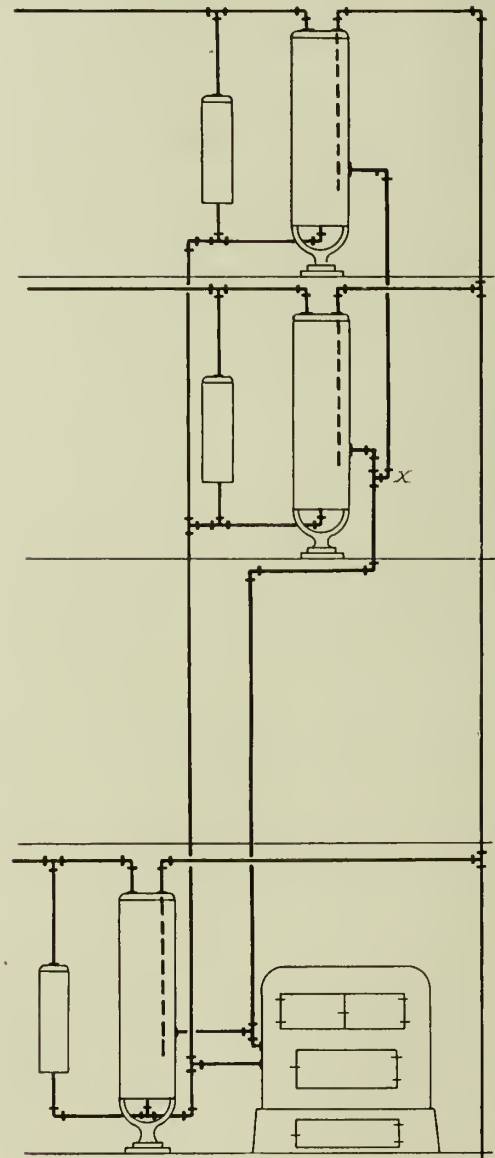


Fig. 2.

boiler when it becomes desirable, although we do not favor the use of valves on hot water supply systems when possible to avoid it.

It is generally estimated that 1 sq. ft. of heating surface in a coil will heat about fifteen gallons of water, and as there are only four feet of heating surface in the 8 ft. coil, it is somewhat questionable whether there is quite enough surface in the coil. It may easily be, however, that conditions are such that the coil will be adequate.



January 21, 22 and 23, 1913.—Annual meeting of the American Society of Heating and Ventilating Engineers, at the Engineering Societies Building, 29 West 39th street, New York City. The annual dinner will be given at the Hotel Martinique, 36 West 33rd Street, on Wednesday evening, January 22nd. The officers of the society are: President, Professor John R. Allen, p. t. Constantinople, Turkey; first vice-president, John F. Hale, Camden, N. J.; second vice-president, Edmund F. Capron, Chicago; treasurer, J. A. Donnelly, New York City; secretary, W. W. Macon, 29 West 39th street, New York City.

January 28, 29 and 30, 1913.—Annual convention of the Illinois Master Plumbers' Association, at Springfield, Ill., with headquarters at the St. Nicholas Hotel. The convention will be held in Arion Hall, opposite the hotel. The officers of the association are: President, W. J. Hilliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, Bernard Gause, Jacksonville; treasurer, O. W. Dawson, Decatur; secretary, W. C. Haviland, Aurora.

February 18, 19 and 20, 1913.—The twenty-second annual convention of the Ohio State Association of Master Plumbers, at Toledo, O., with headquarters at the Boody House. The officers of the association are: President, John F. Drees, Cleveland; vice-president, F. W. Sponseller, Canton; secretary-treasurer, Eb Ellen, 2057 East 93rd street, Cleveland; board of directors, Harry S. Smith, Warren; Wm. E. Girkins, Toledo; John J. Vogelpohl, Cincinnati; Charles Hoffman, Mansfield.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The sessions will be held at the Builders' Exchange. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinaber, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

February 20 and 21, 1913.—Annual convention of the Nebraska Master Plumbers' Association, at Fremont, Neb., with headquarters at the Eno Hotel. The officers of the association are: President, J. C. Bixley, Omaha; vice-president, G. H. Wentz, Lincoln; treasurer, F. W. Barclay, Beatrice; secretary, J. B. Coningham, 401 City National Bank Bldg., Omaha.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

May 27, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indian-

apolis, Ind. The officers of the association are: President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

#### ANNUAL MEETING OF NEW ENGLAND PLUMBING INSPECTORS.

The New England Association of Plumbing Inspectors will hold its annual meeting and election of officers at the Elks Home, 10 Somerset Street, Boston, Mass., on Saturday, January 25, 1913, according to announcement just issued by Secretary E. G. Bates, of Springfield, Mass.

#### INTERESTING PROGRAM FOR ILLINOIS MASTER PLUMBERS' CONVENTION.

The official program for the twenty-first annual convention of the Illinois Master Plumbers' Association, which is to be held in Springfield, Ill., on Tuesday, Wednesday and Thursday, January 28, 29 and 30, has just been issued, and it follows herewith in full:

##### Tuesday, January 28th.

The convention will convene at 10 a. m. sharp in Arion Hall, opposite St. Nicholas Hotel.

Invocation.

Addresses of welcome by Governor-elect Edw. F. Dunne and Mayor John S. Schnepf of Springfield. Response by T. E. Walters, Aurora, Ill.

Reading of communications and resolutions.

Appointments of committees.

The balance of the day to be devoted to the exhibits in the exhibit hall adjoining the convention hall.

##### Wednesday, January 29th.

Morning session.

Afternoon session.

Distribution at the close of the afternoon session of complimentary tickets to delegates and members, for the Krebs lecture.

8:00 p. m.—Arion Hall. Stanley L. Krebs' famous lecture on "Suggestions in Business Building, Advertising and Salesmanship."

##### Thursday, January 30th.

Morning session.

Afternoon session.

8:00 p. m. Banquet given by the St. Nicholas Hotel management in lieu of the regular dinner to its guests.

10:00 p. m. Grand march and ball.

In addition to the above, there will be two lectures, illustrated by stereopticon views, given during either the Wednesday or Thursday sessions. One will be on heating and vacuum cleaning and the other on the formation of the closet bowl.

For the Ladies the Springfield Association and the Springfield Commercial Club will provide ample entertainment.

#### DULUTH MASTER PLUMBERS ELECT OFFICERS.

At the regular annual meeting of the Master Plumbers' Exchange, of Duluth, Minn., held last week, the following officers were elected for the ensuing year: President, F. H. Farrell; vice-president, Roy J. Harker; secretary, Fred Deboer; treasurer, J. T. Stack. The association has a good membership and is in a fine financial condition.





## News of Interest Among the Wholesalers and Manufacturers



### SHIRLEY RADIATOR AND FOUNDRY CO. MAKES NOTABLE IMPROVEMENTS.

The Shirley Radiator and Foundry Co., Beech Grove, Indianapolis, Ind., announces that an elaborate display of its heating goods is being arranged in connection with its general offices. This company is also installing additional equipment in its new and up-to-date plant, which will largely increase the output of its product.

### IROQUOIS ENGINEERING CO. ENTERTAINS ITS FRIENDS.

The Iroquois Engineering Co.'s branch at St. Louis, Mo., entertained its friends attending the fourth annual exhibition of the St. Louis Architectural Club, and the St. Louis Chapter of American Institute of Architects, held at St. Louis January 13th to 19th. The entertainment was given on Monday evening, January 13th, in the form of a theater party at the Shubert Theater, in St. Louis, witnessing the performance of "The Little Miss Brown," an exceedingly delectable farce-comedy, which was greatly enjoyed by everyone fortunate enough to be a member of the party.

### AUBURN LEATHER GOODS CO. NOW IN EN- LARGED QUARTERS.

With its new addition, which is just completed, the Auburn Leather Goods Co., Auburn, N. Y., now occupies a plant covering 90x60 feet, three stories in height. This will allow them to double their output, and F. G. Ten Eyck, owner and manager, states that over one hundred and twenty-five people will be employed in the work rooms. The new addition will be devoted to the company's offices, shipping and assembling rooms, mechanical felt and inspection departments and chemical laboratory. The "Algeo" line of leather, rubber, fibre, paper, asbestos, felt and lead packings, is said to have attained a good standing in the trade.

### THE HOME FOLD OF U. B. S. A. HOLDS ANNUAL DINNER.

Seven years ago, plumbing and heating salesmen in Milwaukee, Wis., organized an order called the United Bunch of Sheep of America. The order having been organized there, established the Home Fold, No. 1, in that city. Since then branches have been established in Chicago, New York and Boston, and preparations for those in Kansas City, Minneapolis and Philadelphia are under way. The purpose of the order is to promote good fellowship among its members and the extension of sanitation in plumbing and heating. About seventy-five of the loyal "sheep" gathered for the annual dinner in Milwaukee, which was given at the St. Charles Hotel. The growth of the order and legislation toward better sanitary conditions were the main topics of addresses

made by F. J. Young, Fred Wulf, David Johnson, Peter Werner, William Noll and Arthur Wellhausen.

### YOUNGSTOWN SHEET AND TUBE CO. HONORS GEORGE DEY UPON HIS RETIREMENT.

The Youngstown Sheet and Tube Co., of Youngstown, O., gave a banquet in honor of George Dey upon his retirement as secretary and general sales-manager of the company, a position which he has held for the last ten years. The event took place on Monday evening, January 6th, at the Youngstown Country Club, and it was attended by the officers, stockholders, representatives and superintendents of the company, in all, one hundred and twenty-five persons.

The dining table was decorated with a miniature model of the company's plant in the center, and tracks were laid around the entire table, on which trains were kept running passing the plates of the diners at short intervals. Jas. A. Campbell, president of the company, acted as toastmaster of the occasion, and he did this in a most happy manner, which won the appreciation and admiration of every one in attendance. He opened the post-prandial part of the evening's program with the presentation to Mr. Dey, of an expensive gold watch, properly engraved, with a neatly worded speech, which was a model of the elocutionist's art. Although Mr. Dey was taken by surprise he managed to express his heartfelt thanks in a most appropriate manner to the givers, his fellow-workers, for this invaluable token of their esteem. Speech followed speech, until a very late hour, when the happy event came to a successful ending. W. E. Manning has been elected to succeed Mr. Dey as secretary and general sales-manager.

### THE ANNUAL "GET TOGETHER" DINNER OF THE TRENTON POTTERIES CO.

The office, factory and sales forces of the Trenton Potteries Co., Trenton, N. J., held their annual "get-together" dinner at the Trenton Country Club, on Saturday evening, January 11th. An exceedingly elaborate dinner was served at six o'clock. We have the menu but it is such an extensive affair that we are unable to reproduce it in our columns. We have tried to count the courses but had to give it up.

An exceptionally attractive program of music, songs and speeches followed the dinner, some of the most notable numbers being as follows: Solo, by J. V. Springer; recitation by Ziegler; piano duet, by Springer and Goldenbaum; solos, by Bloor and J. R. Allen; several humorous recitations and a quartette composed of Messrs. Kise, Bloor, Cruser and Weber.

The event was unusually successful in every respect, which is not to be wondered at when it is taken into consideration that "among those present" were: The Boss; The Over-Seer of the Poor; The Paymaster for

Same; The Sales Extinguisher; The Brow-Beater Upstairs; "Union" Wooten and Wildblood, with Ziegler on the side; Skirm from New York (Ave.), Cooper and Bellerjeau (also); Anderson, from the Cemetery, with Reese and Appleton—also from the region of the dead; The Big, Little Timber and his branches, Spicer and Clayton; "Hinglish" Walker, with his closettes, Bloor and Van Fleet; Hoffman and Springer, the loquacious correspondents; W. G. Cruser, buyer of junk; Stan Brown, boss mechanic; Bookworms Appleton and Lanning; Dutch Goldenbaum, the china underwriter; Caruso Allen, the porcelain order writer; Detectives F. Allen and Moose; Lansing and Van Sciver, the comic artists, and the guy who had the nerve to write this.

#### THE JANUARY MEETING OF THE ILLINOIS CHAPTER OF THE A. S. H. V. E.

A representative gathering of the Illinois Chapter of the American Society of Heating and Ventilating Engineers took seats at the festive board at Vogelsang's Restaurant, on Monday evening of January 13th, and after partaking of choice viands, they listened to instructive addresses on the topic, "Conditioning of Feed Water—Oil, Corrosion, Scale, and Odor." Vice-President G. H. Getschow presided in the absence of President Stannard, who had been called out of the city.

With the aid of lantern slides the two speakers of the evening dealt extemporaneously with the subject of water softening and the elimination of scale in boilers, and whether steam or vapor passing into rooms from air vents is detrimental to the best sanitary conditions. The use of the stereopticon at the meeting proved a most excellent asset in driving home clearly and forcibly the arguments made by the speakers.

F. S. Dunham, who is connected with the Kennicott Softener Co., of Chicago, made some noteworthy observations on the aforesaid subject.

In order to show comparison between different waters an analysis was shown on the lantern slides, of Lake Michigan water, which is considered fairly hard, of Chicago Heights water, which is a very hard water, and then an analysis was shown of a softened water from a large plant installed for the Peoples Gas Light & Coke Co., at its Division Street Station.

Sectional cuts of the water softeners were shown on the screen, and a description of the operation of the machine given in detail.

Photographs of installations of water softeners for different purposes in all parts of the world were also shown. They included installations on the railroads at many points throughout the United States, from the hard waters in the Northwest to the alkali water in New Mexico and Arizona. Also photographs of softeners installed in Italy, Australia, South Africa (in the gold and diamond mines), Germany, France, England and in Yucatan, Peru and many other points.

These installations covered broadly softening water for almost every conceivable purpose, locomotive boilers, stationary boilers, water for paper mills, silk mills, laundries, breweries, tanneries, municipalities, and even for bath houses and hair-dressing parlors.

A few "horrible examples" in the way of scale formations were pictured, one piece taken out of a boiler measuring almost 3 in. square and about 1 ft. long. Also pieces of scale from one-quarter to one-half inch thick showing results of using ordinary hard water in boilers for a short time.

William M. Jewell of the Jewell Filtration Co., of

Chicago, in his talk on filtration, evoked the applause and approval of members of the Society.

Dr. Hill, chief of the Ventilation Department of the Department of Health, was among the well known guests present. The next meeting of the Chapter will be held at Vogelsang's Restaurant on Monday evening, February 10th, when the subject "Expense of Operating Heating and Ventilating Plants," will be discussed.

#### THE ANNUAL CONVENTION OF THE CENTRAL SUPPLY CO., OF MINNEAPOLIS, MINN.

Salesmen and department managers of the Central Supply Co., of Minneapolis, Minn., were given a banquet at the Radisson Hotel, Wednesday evening, January 8th. Their annual convention started January 6th, and the banquet was purely a social affair.

Many excellent recommendations were brought up by the sales force and department managers at the convention, and an exceptionally forceful and helpful address was given by P. J. Frey, president of the firm, on the art of selling, and the necessity of co-operation and loyalty, which was much appreciated by his listeners. There is no doubt that the company's force is in a business-getting condition, and is ever ready to serve their many friends in the plumbing trade.

At the banquet each participant found an attractive card at his plate with the following poem:

##### A Salesman.

When the train pulls in and you grab your grip,  
And the Hackman's there with his frayed-out whip,  
And you call on your man and try to be gay,  
And all you get is "Nothing doing today."

Then you're a Peddler!  
By gad, you're a Peddler.

When you get into town and call on your man,  
"Can't you see me, Bill?"—"Why, sure, I can."  
You size up his stock: Make a rough count,  
And Bill presently says: "Send the usual amount."

Then you're an Order Taker!  
By, gad, you're an Order Taker.

When you travel along and everything's fine,  
And you don't get up until half past nine:  
When you see each concern and talk conditions,  
And write it all home with many additions.

Then you're a Traveling Man!  
By gad, you're a Traveling Man.

When you call upon the trade and they talk "Hard Times,"

"Lower prices" and decided declines.  
But you talk and you smile, make the world look bright,  
And send in your orders every blamed night.

Then you're a Salesman!  
By gad, you're a Salesman.

##### Impressed.

Actors frequently receive unexpected proof of the realism of their art. Not long ago, on the occasion of the performance of "Hamlet" by a distinguished English player, there were no more interested and absorbed spectators than two newsies in the gallery.

The boys had been watching the performance with breathless interest. The last act was drawing to a close. The duel almost dragged the lads from their seats.

Before their eyes the Queen was poisoned, Laertes killed, the King killed, Hamlet killed. On the final tragedy the curtain started down. The audience was spell-bound.

In the gallery there was a clatter and a crash as one of the boys mentioned started for the door.

"Come on, Tommy!" he shouted back to his companion. "Hustle! Dere'll be extras out on dis!"—Harper's Magazine.



## Personal Mention



J. F. Butler has been appointed general manager of the Shirley Radiator and Foundry Co., Beech Grove, Indianapolis, Ind. Mr. Butler has been connected with this company one year, prior to which he was for seven years connected with the Litchfield plant of the American Radiator Co., at Litchfield, Ill.

H. H. Highlands, one of the leading master plumbers in Gary, Ind., will preside at the thirteenth annual convention of the Indiana Retail Merchants' Association, which will be held at Fort Wayne, Ind., on January 21, 22 and 23, 1913, Mr. Highlands being at the present time president of this organization.

Frank G. Newton, of the United States Sanitary Mfg. Co., Pittsburgh, Pa., has been promoted to a road position with that company, calling on the jobbers of plumbing supplies in the territory formerly covered by John J. Plath. Mr. Newton started his career in 1895 with the Standard works of the Standard Sanitary Mfg. Co., Pittsburgh, and in 1908 entered the services of the United States Sanitary Mfg. Co. He will cover a wide range of territory



Frank G. Newton, Pittsburgh, Pa.

taking in Syracuse, Rochester, Watertown, Utica, Albany, Troy, Buffalo, Cleveland, Detroit, St. Paul, Milwaukee, Chicago, Kansas City, St. Louis, also the Southern territory, including Atlanta, Ga., and other Southern cities. He is very well educated in the enameled sanitary line, and having the representation of the products of the United States Sanitary Mfg. Co. there is little doubt of his success in his new position.

J. J. Cosgrove, of Philadelphia, Pa. the well-known author of "Principles and Practice of Plumbing" and several other books on sanitary science, was in Chicago this week.

H. J. Luff of Cleveland, Ohio, a well known sanitary engineer, spent a few days in Chicago recently. He came here on business matters.

James A. Wilkerson, a master plumber of New York city, was a visitor in Chicago recently. He was here on both pleasure and business. He declares trade conditions are brisk and on the up grade in Gotham.

## AUBURN LEATHER GOODS CO. ISSUES NEW CATALOGUE.


An attractive piece of trade literature has recently been issued by the Auburn Leather Goods Co., Auburn, N. Y., the front cover of which is reproduced in this column. A complete line of "Algo" packings of leather, felt, rubber, fibre and asbestos, for every purpose, is clearly illustrated



Auburn Leather Goods Co's. Unique Catalogue.

and described in its pages. The cover is imitation leather made of a good grade of heavy paper. Instead of binding, the catalog is punched and tied with three strips of leather at the back, giving it a very unique appearance. Any of our readers can obtain a copy of this catalogue upon request to the Auburn Leather Goods Co.

## Obituary



### Frank C. Phillips.

Frank C. Phillips, president and founder of the F. C. Phillips Plumbing and Heating Co., of Lincoln, Neb., died at his home in that city on Friday evening, January 10th, after six weeks' illness. Mr. Phillips had been in the plumbing business since 1895, and he took an active interest in association work. He served as president of the Nebraska State Association of Master Plumbers for two years, from 1909 to 1911, and was also president of the Lincoln Association during the same period. He was a member of the Elks and one of the founders of the Rotary Club, in Lincoln. He was 59 years old at the time of his death.

### James M. Harris.

James M. Harris, head of the plumbing firm of James M. Harris & Son, of Hartford, Conn., died at St. Francis hospital in that city on Sunday night, January 5, following an operation. He was born in London, England,

but had resided in Hartford for forty years and for the past twenty years had been engaged in the plumbing business at 548 Asylum Avenue. A widow and six children survive.

#### Mrs. J. P. Rundle.

Mrs. Helen Louise Rundle, wife of Col. Joseph P. Rundle, president of the Rundle Manufacturing Co., and founder of the Rundle-Spence Mfg. Co., died in the Rundle residence, at Milwaukee, of heart failure, at the age of 73 years. Her husband and two sons survive her.



#### PIG IRON BUYING IS SLACK.

The first weeks of the new year have shown very few orders booked and light inquiries. This is mainly on account of the fact that all furnaces are sold well into the coming year and are unable to fill new orders except for second quarter business and buyers for the new year are holding back. This does not mean, however, that the consumption of iron has fallen off, as heavy shipments are reported from all parts of the country and up-to-date shipments are demanded on all orders which were placed during the fall. Statistics recently compiled show a production of 2,782,737 tons of pig iron during December, an increase of 151,183 tons over November. The total consumption during the year 1912 reached the astonishing figure of 33,500,000 tons. The tone of the market seems to indicate that this rate will remain steady in 1913.

The Western market is quiet with little demand for either northern or southern iron. Shipments are heavy and furnaces are working full blast to supply contracted orders. Prices are firm in all quarters with buying in the East quiet. The Birmingham district reports numerous inquiries, but buying is confined to scattering lots of four and five hundred tons.

Quotations are as follows:

Northern foundry No. 1, New York.....	\$18.75 to \$19.00
Northern foundry No. 2X, New York.....	18.25 to 18.75
Northern foundry No. 2, Chicago.....	18.00 to 18.25
Southern foundry No. 2, Cincinnati.....	17.25 to 17.50
Southern foundry No. 2, Birmingham.....	14.00 to 14.50

#### COPPER.

Copper is strong but quiet. Prices are firm but dealers are holding back on heavy buying, which tends to make the market inactive. For March and April delivery the situation is easier, with very little buying. Electrolytic is held at 17.62½c New York.

#### TIN.

Fair trading is noted for tin, but orders are scattering and the market is generally dull. The price quoted the first few days of the year was 50.60c, but this has fallen off and 50.45c is now asked in New York.

Akron, O.—Papers have been filed with the secretary of state changing the name of the Limbert-Smith Plumbing Co., to the Reliable Plumbing Co.

#### OLD METALS.

New York dealers' buying prices are:

Light copper .....	\$13.75	to \$14.00
Strictly crucible copper.....	15.00	to 15.50
Uncrucible heavy copper.....	15.00	to 15.25
Uncrucible copper wire.....	15.00	to 15.25
No. 1 machine composition.....	12.50	to 12.75
No. 1 composition turnings.....	11.75	to 12.00
New brass clippings.....	10.25	to 10.50
No. 1 brass turnings.....	8.50	to 9.00
Cocks and faucets .....	10.75	to 11.00
Clean red carboxes .....	11.25	to 11.50
Light brass .....	7.87½	to 8.00
Heavy yellow brass .....	9.12½	to 9.25
Heavy lead .....	3.90	to 4.00
Tea lead .....	3.60	to 3.75
Scrap zinc .....	5.50	to 5.75
No. 1 pewter.....	34.00	to 35.00
No. 2 pewter.....	9.50	to 10.50
Close cut solder joints.....	9.00	to 9.25

#### CHICAGO MASTER PLUMBERS' ANNUAL MEETING AND BANQUET.

The Chicago Master Plumbers' Association held its annual meeting on Saturday evening, January 4th, in Schiller Hall, Chicago, with two hundred members in attendance. The first part of the meeting was given over



Retiring President E. J. Benning, Chicago.

to the hearing of reports from the officers for the year just ended. President E. J. Benning reported a year of unusual success in all the activities of the association. He also called special attention to the good work done by the collection department, which was recently inaugurated, and which promises to become a most valuable ad-



junct to the association's activity. He also mentioned the loss suffered by the association during the past year



The New President, Charles A. Dreier, Chicago.



The Re-elected Treasurer, Ernest C. Wagner, Chicago.

by the death of Andrew Young and J. J. Hamblin, two of the organization's oldest members.

The reports of Treasurer Ernest C. Wagner and Secretary J. C. Naughton showed that the association's financial affairs are in a most prosperous condition, a fact which was gratifying to all the members.

Following these reports, J. H. Roche stepped forward and in behalf of the association, presented President E. J. Benning with a diamond scarf-pin as a token of its appreciation of his services as president. Mr. Benning thanked the members in a heart-felt speech for their kindness.

Next on the program followed the election of officers for the ensuing year, which resulted as follows:

President, Charles A. Dreier.

Vice-President, B. E. Lynam.



The New Vice-President, B. E. Lynam, Chicago.

Secretary, Chas. F. Taffe; Assistant Secretary, Peter M. Munn.

Treasurer, Ernest C. Wagner.

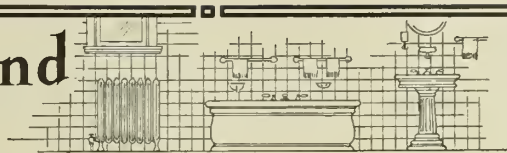
Sergeant-at-Arms, W. F. M. Fetridge.

These officers were thereupon installed, after which President Dreier thanked the members for their confidence in honoring him with the office of president and assured them that he would serve the association to the best of his ability.

The banquet was then in order and the excellent spread was thoroughly enjoyed by all in attendance.

A vaudeville entertainment of high order followed, and this brought the pleasant affair to a successful ending about midnight.

# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—The Cook County Civil Service Commission announces the following list of new eligibles to fill positions as plumbing inspectors for the city: Charles T. Conway, Thomas P. Martin, Thomas Gleason, Joseph Kean, John J. Riley, P. E. Russel, Thomas Dunning, William J. Collins, William E. Fuller, P. J. Murphy, Thomas A. McGrogan, Erwin Mandler, Harry Silberman, D. F. Roche, Gustave Younger, M. Davidson, William E. Cummings, P. D. Eyster.

When notified of his appointment as chairman of the new sanitary Committee of the Chicago Master Plumbers Association, David Whiteford demurred a bit, but when the newly elected president of the association, C. A. Drier, called Mr. Whiteford up and told him that he would not take "no" for an answer, he replied: "Well, I suppose I'll have to serve, then."

At the last meeting of the Master Plumbers' Association, a committee consisting of C. J. Boyd, P. M. Murphy and Chas. T. Byrne, was appointed to draft resolutions on the death of T. A. Hill, past national president. Two members of the committee, Messrs. Boyd and Murphy, are also past presidents of the National Association.

There is going to be "something stirring," down in Springfield on the 27th of January, when the Chicago Master Plumbers' Association goes into session. Among the vital matters to be taken up will be the question of a master plumber on the State Board of Health. Just wait till you hear the set of resolutions that are going to be introduced before the convention endorsing this proposition.

According to health and sanitary officials of the city, public interest in ventilation has increased considerably within the last few years. The many complaints against badly ventilated rooms used by the public are regarded as indication of a general awakening to the needs of the situation, in view of the present epidemic of contagious diseases.

Chicago.—Cook & Chick Co., 18-20 East Kinzie street, has the contract to install a steam heating system at Foley company's new factory building, Northeast corner Sheffield avenue and Wolfram street. This concern also secured the contract to install a steam heating plant in the new store and flat building, corner of Marion and Lake streets, Oak Park. Strickland and Hart are the owners, and E. E. Roberts, 82 West Washington street, architect. One of the largest cast-iron boilers in the market is going in on this job.

## Minnesota

Minneapolis.—Although the past week has been a cold one the trade has enjoyed plenty of work. There has been no sudden cold snaps which bring in a large amount of freeze-ups, but general work conditions seem to be

putting a start to 1913, which is indeed promising. Some of the larger starters for ensuing year are the new Great Northern freight house, costing \$200,000; the new street railway station at Washington avenue, North, and 2nd street, costing \$300,000; Samuel Fleishner is to build eight duplex residences at Knox avenue, North, and 12th avenue, and the University of Minnesota Delta Upsilon Club Fraternity House, 921 University avenue, Southeast, costing \$11,500.

Worthingham & Co., 322-3 Avenue S, were successful in closing the plumbing contract in the Pro-Cathedral school, 16th avenue and Laurel street, for the consideration of \$12,000.

The St. Paul Master Plumbers' Association entertained the Minneapolis Master Plumbers at a dinner in the Hotel Ryan. It was merely a gathering to extend good fellowship and co-operation between the two associations and no business matters were discussed.

### AN ENTHUSIASTIC BUNCH OF DEBATERS.

The Gitchie-Gami Club of Duluth is one of those active bodies of alert young fellows who are making history in the trade in the Northwest. The members are recruited from the plumbing and heating fraternity and the architects and supply men of that city and are constantly putting over something that keeps their existence well known to the public.

A short time ago the boys worked up a little debate in the club as to what fixtures should be installed by the club itself. The debate was between a representative of



Gitchie-Gami Club, Duluth, Minn.

the J. L. Mott Iron Works and a representative of a local jobber, and was decided in favor of F. S. Crumby, of the J. L. Mott Iron Works, as the star debater.

The illustration herewith is made from a photograph taken on that occasion and shows those in attendance at the debate. Reading from left to right in the top row are P. M. Olson, architect; Christopher Anderson; Frank Crandall, of D. R. Black Co., plumbers; A. Halstead, architect; and John Mullin, plumber. In the bottom row are John Stack, plumber; Mr. McLeod, of Crane & Ordway Co.; D. R. Black, of D. R. Black Co.; F. S. Crumby, of J. L. Mott Iron Works; and A. McDougall, plumber.



## Wisconsin

Milwaukee.—Paul Reinsch, a local steamfitter, was seriously burned recently when a stream of sulphuric acid struck his face. He was attempting to repair a valve on a tank of acid in the plant of the German-American Chemical Company when the accident occurred. It was thought for some time that he would lose his sight. In rescuing Reinsch from the room, J. W. Laurie, a chemist, was overcome by acid fumes, but has recovered.

That a new sewage system will be necessary in Milwaukee in the near future is the opinion of John W. Alvord, Chicago, a member of the sewage commission, which made a report of the Milwaukee situation. Mr. Alvord suggests that septic tanks be built, and a station be installed to lift sewage from lowlands to a level where it could be carried to a purifying plant. A modern system to suit local conditions would cost \$4,000,000.

Oshkosh.—Mueller Brothers recently completed a modern heating and plumbing installation in the basement of the new Bowen Street Lutheran School here. The heating plant will take care of the structure, which is 2-story and basement, 68x70 feet in size, and of brick construction. The complete structure cost approximately \$15,000.

Watertown.—The plumbing firm of Kusel & Kusel, on West Main Street, will hereafter be conducted by Arthur Kusel. Mr. Kusel has engaged competent help and is in the field for all kinds of plumbing, sewer and gas fitting work.

Stoughton.—A new plumbing and heating establishment is to be opened in the Olsen building on East Main street by Charles Weigel. Mr. Weigel is well known locally, having, until recently been engaged in a similar business in association with Mr. Phillips, as the Weigel & Phillips plumbing and heating company. He sold his interest in the firm but has concluded to re-enter the field, this time for himself.

Neenah.—Edward Aylward, of the Aylward Sons Company, manufacturers of catch basins, has withdrawn from the firm and his share in the business has been assumed by the other brothers. Mr. Aylward will probably locate in Omaha.

Wausau.—The firm of Hett & Molter, which has been for some years in business here, was dissolved on January 10th, B. J. Hett withdrawing from the firm. The title of the firm now is The N. P. Molter Plumbing and Heating Co. The business has been incorporated for \$8,000. Mr. Molter's son, H. P. Molter, and his bookkeeper, A. R. Marson, being taken into the business. Mr. Molter came to Wausau, from Chicago, some years ago.

## Ohio

Cincinnati.—The Brighton German Bank has had plans drawn by Garber & Woodward, for an addition to their bank of two stories, which will be built so as to add additional floors to the height of the bank proper in the future. The addition will necessitate the removal of three pieces of tenement property in the rear of the bank building.

A garage costing about \$100,000 is to be built on the east side of Reading Road between Helen and Morgan streets for the Kroger Grocery & Baking Co. The build-

ing is to be 150 by 200 feet, and two stories in height, in which the company is to house all its motor-driven vehicles.

A twelve-story office building, to cost close to a million dollars, is contemplated for the northeast corner of Sixth and Main streets, as reported by Walter Schmidt, the real estate broker. The building is to be erected by eastern capitalists, who have engaged Ernest Flagg, the architect who designed the Singer Building in New York.

The city is about to purchase a tract of land from Albert Lackman to be used as a country home for the House of Refuge. The deal comprises 390 acres and the price agreed upon is \$78,000. The property is located on Springfield Pike near Glendale, and is known as the Lackman Farm. Mr. Lackman agrees to donate \$10,000 in the erection of one of a series of cottages.

Bausmith & Drainie, architects located in the Gerke building, have received a commission to build an eight-room school building to be built at Maderia, Ohio.

Sheblessey & Stegner will draw plans for the Lippen-cott building, a \$150,000 structure of the re-enforced type. The dimensions to be 70 by 200 ft., and six stories in height. Estimates will be asked for by the beginning of February.

Walter Tarr, the West End real estate broker, has purchased five acres of land on the south side of Mitchell avenue, Avondale, and will at once proceed to erect dwellings costing from \$6,000 to \$9,000. He expects to erect twenty dwellings, and all to be high-grade residences.

The Ruzicka-Rempe Co., builders, located at 3042 Madison Road, contemplate erecting five residences this spring in Oakley sub-division, at a cost of \$18,000.

The Douglass Plumbing & Heating Co. have been awarded the contract for the plumbing installation in the residence being erected for Newton Tebow, assistant building inspector.

Improvements costing \$15,000 or more, including the installation of a complete new heating system, are to be made in the Freeman Avenue Armory, in Cincinnati, O., according to plans which are being prepared by Architect A. C. Kuball in that city at the instance of the County Commissioners. Bids for the work will be opened January 3d.

Toledo.—The Bryce Heating & Ventilating Co. has secured the contract for heating and ventilating systems in the new high school at Pontiac, Mich., the consideration named being \$19,396. This concern was recently awarded the contract for installing the heating and ventilating systems in the addition to the Glenwood school of this city, the amount named in the contract being \$14,252.

The \$80,000 plumbing and heating contract for the new Morrison R. Waite high school in East Toledo has been awarded to Eagen Bros., 237 Erie street. The same firm has been awarded the plumbing contract in the Glenwood school of this city, which will amount to about \$8,000.

Wm. G. Wacker, a master plumber of this city, has been quite ill with typhoid fever. He has been confined to his bed for a month past, but is now convalescing.

Robert Raitz & Co., plumbing contractors, will soon have a new home, a handsome business block being now in the course of construction where the new offices will be established. The building will be especially adapted to the uses of this concern.

Dayton.—The Dayton Master Plumbers' Association has elected officers for 1913 as follows: President, Ellsworth Halteman, of Curtner & Halteman, 1406 North

Main street; vice-president, Charles E. Wilson; secretary, John L. Riley, 929 East Fifth street; treasurer, Frank E. Clemens, of McDermott & Clemens, 28 North Jefferson street; sergeant-at-arms, John Schneider, 1910 East Fifth street. Harry Danner, of Danner & O'Leary, 142 North Main street, and John Schneider, were elected delegates to the annual convention of the Ohio Master Plumbers' Association, to be held at Toledo, February 18, 19 and 20.

The Reick Sheet Metal Company, of this city, has been incorporated by Edward A. Rieck, Bernard R. Rieck, Walter Rhoden, Albert F. Hickey and Walter W. Getter, with a capital stock of \$25,000. The company will manufacture furnaces and carry on a heating contracting business.

A bill providing for the state licensing of plumbers in Ohio will be introduced at the coming session of the legislature. The measure is being prepared with the co-operation of William J. Duffy, secretary of the Ohio Association of Journeymen Plumbers, and William C. Groeniger, state plumbing inspector, both of this city.

Much interest is being shown on the part of architects, contractors and material men throughout the state in the proposed new state building code, which is to be introduced at the session of the legislature this winter. The new code is being formulated by a citizens' committee, of which Architect A. O. Elzner, of Cincinnati, is chairman.

William Haas, plumbing contractor, 429 East Third street, has insured his employes against accidents, under the provisions of the State Workmen's Compensation Act. During the past year a number of employers have taken advantage of insurance against accidents offered by the State of Ohio, thereby protecting themselves as well as their employes. Most of those who have so insured their employes are manufacturers, but master plumbers and contractors in general, are beginning to see the benefits of this measure and to take advantage of it.

## Pennsylvania

Philadelphia.—The weather during the past few weeks has been very unseasonable, but, outside of rainy days, good for outdoor operations. There has been no freezing weather, with the exception of a few days so far. The present contract prices for plumbing and heating are much below what they should be. The complaint that work is being taken at cost just to keep men employed during the temporary dull spell is heard universally.

Mr. Ed. F. Roberts, president of the Philadelphia Association is up and about, wearing a somber black bandage over the injured eye, but looking well and wearing his accustomed smile.

Philadelphia.—The Philadelphia Steam Heating Co., Juniper and Cherry street, has just been awarded the contract to install the heating apparatus in the residence of Mrs. Elizabeth Shearer, 5129 Spruce street. Cost, \$3,000.

E. F. Shallow, 3621 Hamilton street, has been awarded the plumbing and heating in the apartment at 2416 South 20th street, for H. Young.

Thos. A. Beamer & Co., 57th and Pine streets, have been awarded the plumbing and heating in the entire row of houses that are now under construction on South 50th street, between Walnut and Locust streets. This operation comprises over 48 three-story houses.

Edw. Haab, 446 Susquehanna avenue, is installing hot water heat in the residence of Dr. E. F. Seifert, 2206 Cumberland street.

Otto Geimeyer, has just opened a new plumbing establishment at 3605 North 5th street, where he has quite an attractive show room. He reports business very good for the coming season.

F. J. Eustace, 893 Belmont avenue, is installing new plumbing and heating in the residence at 1003 Belmont avenue for Empire Title & Trust Co.

Wm. S. Farley, 328 North 15th street, has been awarded the heating and plumbing in the new stores which are being erected at the Southwest corner of 7th and Girard avenues.

Frank Lilly has opened a plumbing shop at 1206 North 52nd street and will be pleased to receive catalogues and various other literature from the different manufacturers and jobbers.

## Nebraska

### Attractive Plumbing Display Room in Nebraska.

The Sanitary Supply Co., of Madison, Neb., is conducting a most successful plumbing and heating business in that town which has a population of about



Display Room of the Sanitary Supply Co., Madison, Nebr.

2,000. The establishment is said to be one of the most attractive in the state of Nebraska. Our readers can get a fair idea of this company's artistic display room by a glance at the accompanying illustration.

## Indiana

### FOR BETTER SANITATION IN THE STATE OF INDIANA.

With the opening of the New Year, Hoosierdom has taken on additional activity for a real spotless state. Not alone is the Master Plumbers' Association active in pursuit of this achievement, but the state board of health has taken a decided stand for more stringent laws pertaining to sanitation. Recently the state board of health issued a circular entitled, "Murder by Typhoid," in which the minimum death rate was estimated to exceed 600 deaths caused by typhoid fever in Indiana between Aug. 1 and Jan. 1.



Dr. Hurty has defined typhoid as the "Nasty disease," which seems appropriate, as the typhoid death rate in Indiana (35.1) is higher than the cholera rate in heathen India. It is with a view of putting a stop to this onslaught of human lives that the state board has concluded to seek through the state legislature now in session, sanitary measures covering plumbing and sewerage.

Among the commercial organizations that are taking an active part in this crusade for better sanitation is the Travelers' Protective Association. This order has drafted a bill to provide sanitary surroundings in practically all the public buildings in Indiana. It has been given the stamp of approval by the state board and is regarded by members of the board as one of the most advanced steps in public hygiene that has ever been attempted in this state.

#### Provisions of the Bill.

Section 1 of the bill provides that it is unlawful for any proprietor of public buildings to maintain unsanitary or unhealthful conditions in his hotel, restaurant, cafe, lunchroom, apartment house, boarding house, family hotel, lodging house, clubhouse, tenement house, construction camp, public building, postoffice, railroad or interurban station, public or private institution, sanitarium, asylum, jail, courthouse, infirmary, schoolhouse, college, dormitory, church, theatre, public hall, factory, workshop, mercantile or other establishment, street or interurban or railroad car or other public conveyances.

Section 2 defines the unsanitary or unhealthful condition as that tending toward improper lighting or ventilating, improper disposal of slops, sewage or other wastes, improper handling of food, or allowing any employee to be unclean in person or clothing or to employ any one suffering with social diseases, tuberculosis or other contagious or skin diseases.

#### Power to Enforce the Law.

Section 3 gives the state board of health power to enforce the provisions of the act, and Section 4 gives the proprietor of property which is declared unsanitary or unhealthful the right to appeal from the decision of county or local officials to the state board of health.

Section 5 gives the local and state health officers power to abate any such unsanitary or unhealthful conditions and charge the cost to the convicted proprietor.

Another section of the bill provides a penalty of not to exceed \$200 for a violation of the act's provisions, to which may be added imprisonment for not less than one month nor more than six months. An additional fine of \$5 for each day that the unsanitary conditions are allowed to continue is provided for. An emergency clause completed the proposed new act.

The legislative committee of the Indiana State Association of Master Plumbers at a meeting held in Indianapolis Thursday, Jan. 9, adopted a bill that provides for statewide inspection of plumbing and drainage. The bill provides for the appointment of inspector of plumbing in cities and towns within 60 days after the passage of the bill.

The members in attendance at the meeting which was held in the Indianapolis Local Association rooms were: Geo. Kirkhoff, chairman, Indianapolis; O. A. Toelle, Terre Haute; Adolph Lindeman, New Albany; A. E. Werkhoff, secretary, Lafayette.

Richmond.—Edward W. Craighead, a member of the board of directors of the Indiana State Association of Master Plumbers, and head of the Craighead Plumbing & Electric Co., of Richmond, has practically recovered from a broken bone in his right limb, which he received in an accident sixteen weeks ago. Mr. Craighead was con-

finied to his bed for six weeks, and spent the remainder of the time on crutches. Handicapped as he was, Mr. Craighead reports business very brisk at the present time, with brighter prospects for the future. Among the larger contracts the Craighead Company have just closed are the plumbing, vapor heating and electrical work in the new McGuire building in Richmond; another large contract recently closed by this firm is that of finishing and installing the special equipment for the technical high school buildings of Virginia, Minn.; also the plumbing in the residence of Mrs. W. D. Foulje, of Richmond.

Plans are in work for a warehouse and office building by the International Harvester Co., which will be ready for figures in the near future. The building will be occupied by Miller Bros. Hardware Co., of Richmond, and will be a building of similar character as those built by the International Harvester Co., in other cities.

The growth of Richmond is apparent by the growing demand for dwellings and quite a few small residences are contemplated to relieve the demand.

The city council, at its last meeting, discussed at length the proposed building code, and every indication points to the passage of this measure.

Fort Wayne.—Derheimer Bros. are starting off the New Year by closing some good sized contracts, among which are the steam heating system in the Foster building of this city, and the plumbing in the country residence of Mr. T. F. Thieme.

La Porte.—Paul J. Dolan has recently closed the following contracts: Plumbing in the two flats and two residences owned by Tamlin & Low; plumbing and heating in the residence of Percy Day.

South Bend.—J. H. Hawblitzel reports an exceptionally busy season. Among the jobs recently completed by Mr. Hawblitzel are: The contract for the plumbing and heating in the residence of Mr. J. W. Jackson, 1407 Miami street.

Washington.—John W. Greenwood has moved his place of business one door west of his old stand. His new location, which is located at 114 E. South street, affords Mr. Greenwood a much more desirable location, and he contemplates installing a modern showroom and office. Mr. Greenwood reports that business never was better, and the indications point to a big year for 1913.

Mishawaka.—Joseph C. Colbert, of this city, has been awarded the plumbing in the Mishawaka woolen mills factory. The contract price is \$5,000.00.

Evansville.—The Master Plumbers' Association, of this city, held the annual election of officers on Wednesday night, Jan. 7th, and the old officers were re-elected by acclamation as follows: Wm. J. Woolley, president; Chas. Sabelton, vice-president; Geo. Hewson, secretary; B. DeChamp, treasurer.

The president appointed the following committees for the ensuing year:

Sanitary Committee.—Walter Gottman, Wm. J. Bloomfield and B. DeChamp.

Entertainment Committee.—Geo. Green, Wm. Brown and B. Newman.

Delegate to Builder's Exchange.—S. A. Schmitt.

Delegates to Builders' Co-operative Assn.—Geo. Hewson, Emil Hartig and Chas. Saberton.

Legislative and Finance Committee.—H. G. Newman, S. A. Schmitt and John O'Donnell.

Membership Committee.—Chas. Saberton, John O'Donnell and Walter Gottman.

The H. G. Newman Plumbing Co., of this city, has been awarded the plumbing and heating in the new First National Bank building, which is being erected at the corner of Main and Third streets. The building will be

heated by a system of indirect heating; the fresh air will be admitted from the rear of the building passing through ducts to the air washers. A system of humidity control is arranged for maintaining a saturated temperature of the air leaving the washer. The foul air is discharged through the roof by means of an electric driven suction fan located under roof. A 60 horse power tubular boiler is provided for the heating system, but the installation is arranged for connections with the City central station heating system. The plant will also be provided with automatic temperature control. The plumbing is to be modern in every respect, while the toilet rooms are numerous and elaborately equipped.

Wm. J. Bloomfield has been awarded the heating contract in the residence of J. M. Clark, of this city.

John E. Wooley & Son, of this city, have closed contracts for some very desirable business recently, among which are the plumbing and heating in the Orr Iron Company's plant; plumbing and heating in the factory of the Imperial Desk Company; the contract for the power plant and water system in the Spencer County hospital; water supply system in the suburban residence of Geo. Puder.

## New York

Utica.—Bannigan & Cooper, 8-10 Deavereaux street, submit a snap-shot of a bath room display which is nicely arranged. They report all the business on hand that can be attended to, and the following are a few ad-



Bath Room Display of Bannigan & Cooper, Utica, N. Y.

ditions to their list of new contracts: Plumbing in St. John's Orphan Asylum, \$15,000; the Delta Upsilon Fraternity Building, plumbing and heating, \$2,000, and the plumbing and heating in the six-family flat of Hon. M. H. Saxton, which amounts to \$2,200.

## Massachusetts

Amesbury.—M. E. Deal has opened an up-to-date plumbing establishment in the center of the town. He already has enough orders to keep several men busy. Mr. Deal was formerly engaged in the plumbing business at Winthrop, Me.

Lawrence.—In connection with a general raise in pay for city officials, Plumbing Inspector Oswald Cullington has had his salary increased from \$1,200 to \$1,300, and Sanitary Inspector Jacob Vatter has had his increased from \$800 to \$900.

Springfield.—Frederick Holland is planning a considerable addition to his plumbing establishment on Dwight street and intends to start work right away.

Somerville.—Mayor Burns, in his inaugural address, has recommended the installation of steam heating and ventilating systems in the Morse and Cummings schools.

## Kentucky

Louisville.—Within the past few weeks there has been an increase of approximately five per cent in the cost of plumbing supplies in Louisville and Kentucky. A number of factors are responsible for the stiffening market, chief of which is the advancing cost of cast iron. There are no further increases in prospect, in view of the fact that all conditions leading to the recent rise are now settling, and may be said to promise considerable stability. Much relief has been afforded the trade in general, and especially the manufacturers and supply houses, by reason of improved traffic conditions. Shipments of raw materials and finished goods are moving much more freely now in this territory than they have for some time, owing to the elimination of the car shortage, which embarrassed shippers in all lines during the fall and even toward the middle of winter.

A meeting of the Louisville Master Plumbers' Association, featured by the installation of officers for the ensuing year, was held a short time ago. About sixty enthusiastic master plumbers and representatives of plumbing supply houses in the Gateway City gathered at the Association headquarters. The installation of officers and the attendant jollification consumed the entire evening. The association men expressed themselves as being so thoroughly delighted with their old staff of executives that most of them were re-elected for extra terms, only one or two veterans declining re-election because of a press of private duties. George W. Schardein was unanimously hailed as president of the L. M. P. A. for a second term. Then Leo P. Spies was re-elected vice-president for 1913; James Petty was made secretary to succeed Edward Gray, and Phillip Miller, who has faithfully guarded the funds of the association for about fifteen years, was re-invested with the robes of treasurer for the new year. Henry E. Otto was elected sergeant-at-arms of the association, succeeding Jacob Isaacs.

The apartment house now being erected in Jackson, Tenn., by H. C. Bondurant, at a cost of \$25,000, is to be equipped with a complete heating plant at once.

New Orleans, La.—Gaiennie Co., Carondelet & St. Joseph streets, has recently secured several good contracts for plumbing and it is consequently in the market for \$60,000 worth of plumbing materials.

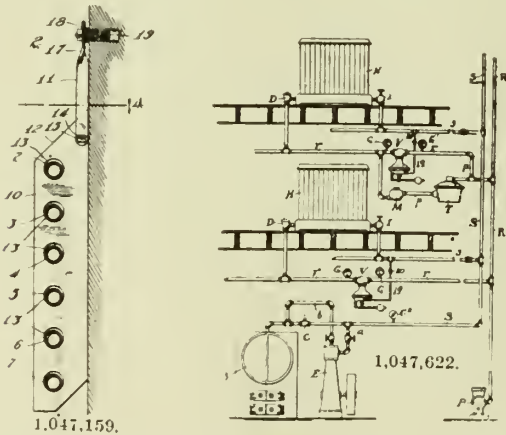




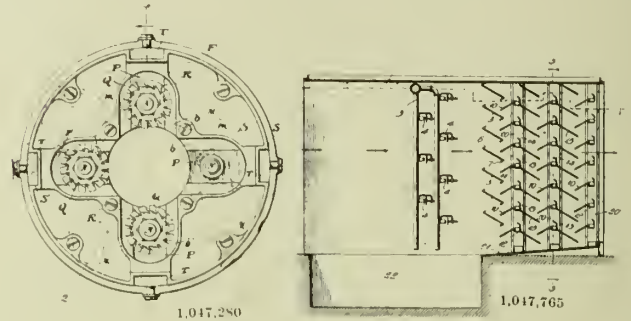
### Heating Department.

1,047,159. Pipe Hanger. William A. Bowers, Milwaukee, Wis. A pipe hanger for supporting a pipe coil and comprising a hanger plate formed from a single narrow strip of flat sheet metal having a plurality of vertically superimposed and equi-spaced apertures of slightly greater diameter than the external diameter of the pipes to be supported, which permit limited lateral play and a flexible suspension arm having its lower end secured to the hanger plate and its upper end twisted into a plane substantially at right angles to the plane of the hanger and pivotally connected to a suitable support.

1,047,622. Steam-Heating Apparatus. James A. Donnelly, New York, N. Y. In a steam-heating system, the combination with the main supply pipe and the main return, of a series of radiating sections or systems, branch supply and return pipes connecting said radiating sections or systems with the supply and return mains, a controlling valve in the branch return pipe of each of said radiating sections or systems, and a pressure motor device controlling said valve and controlled by the differential pressures in the branch supply pipes and in the branch returns between said valve and the radiating section or system.

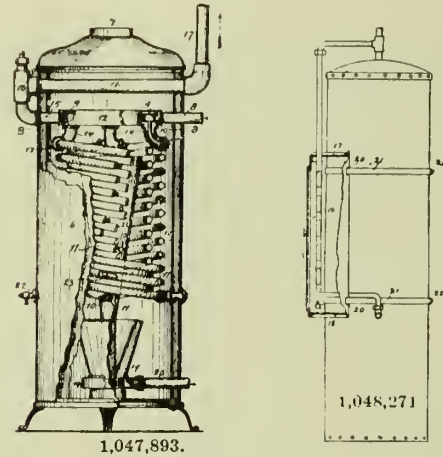


the class described, the combination with means for moistening a horizontally flowing column of air; of a series of horizontally disposed and downwardly inclined baffle plates in rear of said means, and a plurality of upright series of eliminator plates in rear of said series of baffles, each series of eliminator plates comprising several like plates spaced vertically from each other the same distance as are the baffles, and each plates con-



sisting of a rearwardly and upwardly inclined leaf upon which the air is deflected by one of the baffles, a gutter across the upper edge of the leaf and standing wholly below its projected plane, and a rearwardly and downwardly inclined leaf extending from the rear wall of said gutter and serving as a baffle to a plate in the series next to the rear.

1,047,893. Water Heater. Leo A. Korb, Richwood, W. Va., assignor of one-half to Bernard Sicking, Cincinnati, O. In a water heater, the combination of two annular



1,047,280. Thread-Cutting Mechanism. Herman W. Oster, Cleveland, Ohio, assignor to The Oster Manufacturing Company, Cleveland, O., a corporation of Ohio. In screw-cutting mechanism the combination with a tubular work holder adapted to be clamped upon the work, a tubular cutter carrier having a lead screw connection with the work holder, a bearing block mounted on said cutter carrier, and a rotatable cutter shaft mounted in said bearing block, of a gear concentric with the cutter carrier and rotatably mounted thereon, a train of mechanism intermediate of said gear and cutter shaft, a worm wheel which embraces and has a sliding tongue and groove connection with the cutter carrier, a laterally extended shaft mounted upon the work holder, a worm fixed to said shaft engaging with the worm wheel, and mechanism intermediate of said shaft and the gear referred to for turning the latter at a speed greater than the speed of the cutter carrier.

1,047,765. Air Purifying and Humidifying Apparatus. George C. Derby, San Francisco, Cal. In a device of

manifolds one within the other, an intake for the inner manifold entering through the outer manifold, an outlet from the outer manifold, coupling members provided on the underside of this manifold, water-heating pipes connected at one of their ends to these couplings, pipes within these water-heating pipes and connected at one of their ends to the inner manifold, both sets of pipes shaped to form concentric coils which are in open communication with each other, the free ends of the inner pipes being open and terminating within the outer pipes, the ends of which are closed beyond the open ends of the inner pipes, so that water may flow uninterruptedly from the inner manifold through these inner pipes and out through the outer pipes to the outer manifold, an inclosure which contains these manifolds and pipe coils and means to supply heat to this inclosure.

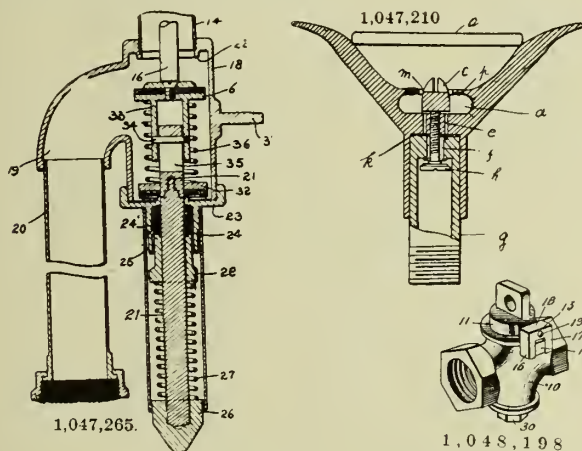
1,048,271. Water Heater. William P. Austin, Brooklyn, N. Y., assignor to V. Le Beau Maury, Brooklyn, N. Y. In a water-heating apparatus, the combination with the boiler tank, having means for water circulation, of a

heating chamber having front and side walls, attached closely adjacent to one side of the said boiler tank, a pipe disposed within said heating chamber, said pipe being formed into a vertical grid, one bend over the other, the inlet being connected to the boiler tank, at its side outlet, the other end of said pipe entering the boiler tank at the top outlet and heating means within said heating chamber adapted to raise the temperature of said pipe.

#### Plumbing Department.

1,047,210. Drinking Fountain. John Hall, Jr., West Springfield, Mass., assignor to Springfield Sanitary Drinking Fountain Company, Chicopee, Mass., a corporation of Massachusetts. In a drinking fountain the combination of a pipe element, a fountain element cooperating therewith, said fountain element being provided with a chamber adapted to contain water, a passage for the water to enter the chamber, a non-supporting device arranged in said chamber and having a portion extending to the open through an opening leading from said chamber, said chamber having surfaces to give the water entering a circular motion, and also to direct the water downwardly and at an incline to the axis of the non-squirting device, to prevent water from being driven directly out of said opening.

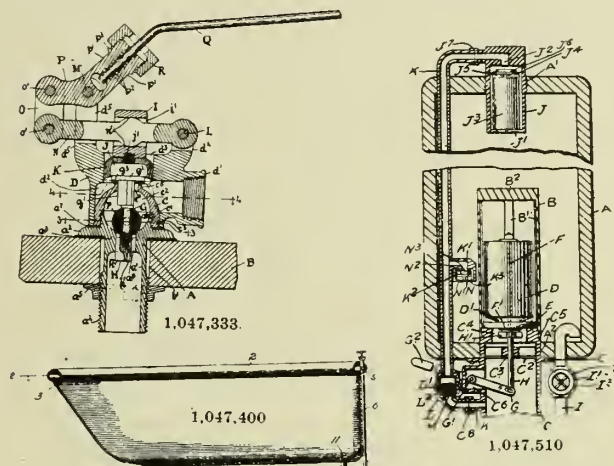
1,047,265. Flush Mechanism for Closets. Daniel W. McNeil, Cincinnati, Ohio, assignor to The John Douglas Company, Cincinnati, O., a corporation of Ohio. A flush mechanism for closets comprising a flush tank, a flush valve located in said tank, a bowl provided with a flush passage, a seat on said bowl, piping between said tank and said passage, a stop valve between said tank and said passage located in said piping, concealed means for actuating said flush valve, a spring restrained rod for actuating said stop valve and said concealed means, a self-adjusting lost-motion connection between said rod and said stop valve, and a lever mounted on said seat for actuating said rod.



1,048,198. Seal for Service-Cocks. Philip Mueller, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a corporation of Illinois. In combination with a cock body having a projecting lug, and a cock key having a similar but shorter lug adapted to be brought into parallelism with the lug on the cock body, of a frangible locking member comprising two parallel lugs connected at one end, said member adapted to straddle the longer lug and bear against the shorter lug, and a screw threaded into the connecting portions of said locking member for fastening the same to the key, said screw having a weakened portion near its head whereby the latter may be broken off below the face of the locking member when the screw has been driven home.

1,047,333. Ball-Cock. Henry W. Theis, Milwaukee, Wis. In a device of the class described, a valve-chamber having an

inlet and an outlet passage at opposite sides thereof, a reciprocating plug in said chamber adapted to close the inlet passage when it is at one end of its movement and to occupy a position intermediate between said passages when it is at the other end of its movement, and an automatic plug-operating device adapted to move said plug from said intermediate position to the first-named end of its movement; said device being removable independently of said plug and the latter being in such case free to be moved by water pressure to the opposite side of said chamber and close said outlet.



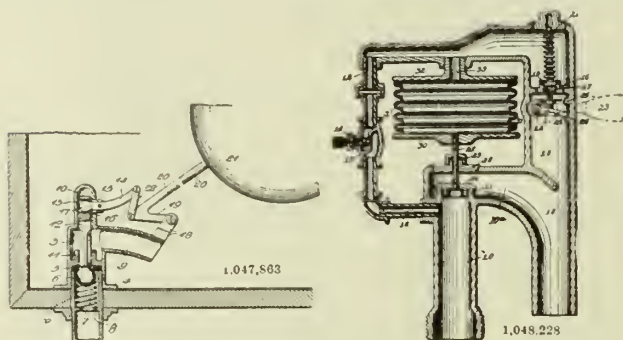
1,047,400. Bathtub. Herman W. Fischer, Oklahoma, Okla.; William T. Martin, Sr., administrator of said Fischer, deceased. A bathtub provided with an inwardly curled rim at its upper edge, said rim forming a waterway around the top of the tub, said rim curled inwardly to provide a slot between the inner edge of the curled portion and the inner side of the tub, said slot opening downwardly from the waterway and gradually increasing in width from its narrowest portion at the foot of the tub to its widest portion at the head of the tub to equalize the flow of water down the sides of the tub, and a water-supply cock at the foot of the tub, said cock having oppositely extending nozzles disposed horizontally within the waterway.

1,047,510. Flushing Tank. William Alexander Fraser, Georgetown, Ontario, Canada. The combination with the tank and flushing pipe of an air pipe extending within the tank from the top of the tank down to the flushing pipe, and a valve for closing the air pipe at the top of the tank upon the rising of the water in the tank, an elbow on the air pipe located intermediate of its length within the tank provided with an orifice, an enlargement formed on said elbow, a valve located within said enlargement and beneath said orifice, a second enlargement formed on the lower end of said air pipe adapted to receive antiseptic material.

1,047,863. Float-Operated Valve. John W. Wall. Bisbee, Ariz., assignor of one-third to Leonard Koch and one-third to L. A. Brown, Bisbee, Ariz. In a float-operated valve for tanks, a valve casing arranged in the bottom of the tank and projecting below the same to form a supply pipe connection, a plunger casing engaged with the inner end of said valve casing and forming a fluid tight connection between the valve casing and the bottom of the tank, a washer arranged between said valve casing and plunger casing, said washer having therein a valve seat, a valve arranged in said valve casing, a spring to normally hold said valve in engagement with said seat, a plunger guiding socket on the upper end of said plunger casing, a plunger guiding flange arranged in said



casing, a plunger slidably mounted in said socket and flange and having its lower end engaged with the valve whereby when the plunger is depressed the valve will be opened, a discharge spout on said plunger casing, a plunger operating lever pivoted on said socket and having its end projecting into the same and engaged with said plunger, a float rod having an angular inner end pivotally connected at the end to said spout, a link to connect the apex of said angular inner end of the valve rod with the outer end of said plunger operating lever and a float carried by the outer end of said float rod whereby when said float is lowered by the discharge of the water from the tank said lever will be actuated to depress said plunger and thereby open said valve and whereby when the tank fills and the float rises, said lever will be actuated to permit the valve operating spring to close the valve.



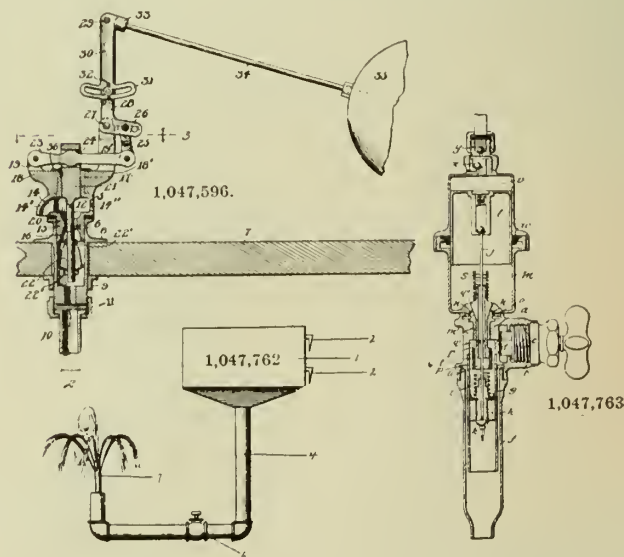
1,048,228. Closet-Flushing Device. Austin A. Sutherland, Des Moines, Ia. In a device of the class described, the combination of a body portion cast complete in one piece and comprising an intake pipe having a valve seat at its top, a passageway communicating with the upper end of the intake pipe, a discharge pipe communicating with said passageway, and a water chamber at the top of the casting spaced above said passageway and communicating with the discharge pipe, at one side of the casting, a valve seat between the water chamber and the discharge pipe, a screw plug in the top of the said passageway above the valve seat in the intake pipe, an expansible chamber having its upper end secured to the water chamber and communicating therewith, a valve stem fixed to the lower part of the expansible chamber and extended through said screw plug, a valve on the lower end of the valve stem designed to coact with the valve seat on top of the intake pipe, a by-pass communicating with the intake pipe below the valve seat therein and communicating with the water chamber at the top of the casting, an adjustable reducing valve in said by-pass, a spring-closed valve on the valve seat between the water chamber and the discharge pipe, and means for manually opening said valve.

1,047,596. Ball-Cock Valve. Edward W. Webster and Chester V. Webster, Dubois, Pa. In a ball-cock valve in which the valve member opens against pressure and seats under pressure, a valve body embodying a casing section having a lateral discharge port and a downwardly projecting extension and a stand section receiving the extension of the casing section, said extension having a valve seat on its lower end, a stem working in and extending through the casing section and projecting into the stand section, a valve adjustably connected to said stem for engagement with said valve seat, a pair of standards carried by the casing section at one side of its upper end, a pair of lugs at the opposite side of said upper end of the casing section, a lever pivoted at one end to said lugs and extending through said stem an

L-lever pivoted between the upper arm of said standards, a link connecting the shorter arm of said L-lever with the free end of said first-mentioned lever, a lever-arm pivotally connected at its upper end to the upper end of the long arm of said L-lever and adjustably connected at its lower end to said long arm intermediate the ends of the latter, and a float connected to the upper end of said lever-arm.

1,047,763. Water Tap or Faucet. Jean Baptiste Emile Delsuc, Paris, France. The combination with a cylinder, of a smaller cylinder, pistons slidably mounted therein, means adjustably connecting said pistons, a tubular member slidably mounted on said means for opening and cutting off communication between said cylinders, said tubular member comprising a conical portion, the body of said tubular member being provided with an opening, and a member of smaller bore than said tubular member tightly joined to the latter, spring means carried by one of said pistons adapted to operate said tubular member at a greater speed than that of said pistons, spring means carried by said conical portion adapted to be operated by the other of said pistons for reversing the movement of said tubular member, and an inlet opening provided intermediate the pistons through which is adapted to pass the fluid for operating the pistons in either direction, as set forth.

1,047,762. Drinking Fountain. John C. Davis, Dighton, Mass., assignor to H. Mueller Manufacturing Co., Decatur, Ill., a corporation of Illinois. A drinking fountain con-



taining means for delivering a drinking stream and containing also a second means adapted to emit water to wet a person before his face can contact with the first-named means.

St. Paul.—F. J. Spriggs, 43 W. Fourth Street, has secured the contract to install a power plant and plumbing and steam heating systems for the Northern Pacific Railway's round house and shops located at Centralia, Wash.

Richmond, Ky.—The Richmond Heating and Plumbing Co., of this city, has secured the contract for the installation of a steam heating system in the new dormitory at Eastern Kentucky Normal School. The consideration is \$1,980. This company has also secured the contract for the plumbing and electric wiring in the same building at its bid of \$3,000.

### PHILADELPHIA MASTER PLUMBERS' LADIES' NIGHT.

The annual banquet and entertainment of the Master Plumbers' Association of Philadelphia, will be held Monday evening, January 27th, at Hotel Walton, Broad & Locust Streets, in that city. As this affair is getting more popular every year, the announcement is received with great pleasure. The committee announces that the affair this year has been arranged on an even more liberal scale than in the previous years. Special provisions have been made for the entertainment of the ladies and a number of surprises are in store for all who attend. The entertainment, which in former years took up most of the evening, will be condensed considerably in order to give more time for the banquet and dancing. Last year's affair was pronounced the best the association ever sponsored, and the committee has made every possible effort to excel even last year's success. Dancing will continue until 1 a. m. The tickets to members which include one lady will be \$3.00 and as this figure does not cover the actual cost, tickets are non-transferable and will only be honored when presented in person. Tickets for each additional lady will be \$2.00. Guest tickets admitting one gentleman and lady will be \$5.00. These prices will include wardrobe and all other charges. The committee in charge are: Harry B. Lentz, Ed. F. Roberts, S. Louis Barnes, Gregor Drummond, Robert H. Pflug-Felder, Harry Bisbing and George Moeller.

### ILLINOIS MASTER PLUMBERS TO PETITION GOVERNOR.

Governor-elect Edward F. Dunne, of Illinois, is to be petitioned by the master plumbers of Illinois, to appoint one of their number on the State Board of Health. The sanitary conditions of the state have been shown to be

chairman, C. J. Herbert, D. J. Hickey, Chas. C. Breyer and Chas F. Taffle, of the Chicago Association presented the matter to Governor Deneen, but did not succeed in getting the matter into shape.

### PLUMBERS WANT CRAFTSMAN ON STATE BOARD OF HEALTH.

Governor to Be Asked to Appoint Man Familiar with Domestic Engineering To Help Body.

Governor Elect Dunne will be asked by the Master Plumbers' Association of Illinois to appoint a master plumber or a sanitary engineer to the state board of health.

On Jan 26 the association plans a convention at Springfield, when resolutions to this effect will be presented to the governor.

Demand also will be made that the legislature amend the state laws to enable the board of health to enforce any sanitary recommendations it may make regarding the disposal of sewage or regarding other municipal health affairs. At present the sanitary engineer connected with the board is merely used occasionally, and then only in an advisory capacity.

According to David J. Hickey, former president of the Chicago Master Plumbers' association, present members of the board of health have only theoretical knowledge of sanitary engineering.

Dr. W. A. Evans, former commissioner of health, says:

"In my judgment, the state board of health would be a better agent for the conservation of the health of the people of the state if a sanitary engineer who is competent and has acquired a broad knowledge of the laws and principles of sanitary science be made a member."

From "The Chicago Tribune."

Considerable agitation has been stirred up the past few months. The accompanying reproductions of clippings from Chicago papers, show what has been accomplished by "Domestic Engineering" in this work.

### ABOUT THE ONE-CENT LETTER POSTAGE.

One cent letter postage would be profitable to a few large commercial houses, but it would do very little for the rank and file of mankind. An association organized at Cleveland, is endeavoring to carry on a propaganda to reduce the postage on letters and to increase it on newspapers, magazines and periodicals. The misleading statement is made that the first class mail earns an annual surplus for the government of \$70,000,000 while the newspapers and magazines represented in the second class mail are a tremendous burden on the Government. The Hughes Commission appointed by President Taft thoroughly disproved this latter statement. It is well that the newspapers and other periodicals that are being besought to print the absurd, one sided statements of the National One-Cent Letter Postage Association should refuse to lend themselves to a propaganda aimed at them. We wonder who pays the bills of this association? Is it the express companies, the railroads, or some other good angel without wings?

"Not mere size in dollars, but size which is an undue proportion."

### WANT SANITARY EXPERT

Master Plumbers Will Ask Governor Dunne to Appoint Member on State Health Board.

According to an article in the current issue of Domestic Engineering, a master plumbers' trade paper, resolutions indorsing the appointment of a master plumber or practical sanitary engineer as a member of the Illinois state board of health will be introduced at the convention of the Master Plumbers' Association of the state at Springfield on Jan. 27. These resolutions will be forwarded to Governor-Elect Dunne, with recommendations that he take under advisement the desirability of appointing a sanitary expert to sit with the physicians on the state board.

From "The Chicago Evening Post."

in need of some more effective work on the part of the State Board, and it is suggested that a master plumber can help to prevent much disease and insist on the enforcement of existing preventive laws. Two years ago, a committee composed to P. M. Murphy,



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

## Situations Open.

**WANTED—AN OFFICE MAN EXPERIENCED** in the mill and plumbing supply business. Also an experienced and energetic salesman to work out of Louisville, Ky. The Falls City Plumbing Supply Company, 525 East Market St., Louisville, Ky.

**TRAVELING SALESMAN FOR TEXAS** territory, experienced in selling plumbing and heating supplies. Give references and experience in first letter. Higgins Company, San Antonio, Texas. 12-28-1-4-11-18

**WANTED—EXPERIENCED MAGAZINE** Subscription Salespeople who can forcefully and convincingly present the varied features of technical magazines, to travel Southern States this winter. Bond and references must be given. Commission contract worth \$100.00 to the right party. Address Box 897, c/o "Domestic Engineering," Chicago, Ill. tf

**WANTED: TO GET IN TOUCH WITH** a first class Plumber and Steam Fitter. One that has had some experience with warm air furnace work. Must be a good all round man and not afraid to work. No boozier need answer. Man under thirty preferred. Steady job the year round if you make good. Address M. L. McClain, Vermillion, S. Dak. 1-11-18

## Situations Wanted.

**PLUMBER, FIRST CLASS, A LEAD-** maker, knowledge of steamfitting, fast, sober, reliable, wants position. 16 years' experience. Southern states preferred. Address No. 912, care of "Domestic Engineering," Chicago, Ill. 1-18

## Miscellaneous

**SELL YOUR SURPLUS COUPLINGS** and fittings. Write us. The A. & J. Mfg. Co., 557 W. Lake St., Chicago. tf

**PLANT WANTED—WE WANT TO PUR-** chase a plant for manufacturing hot water boilers. Must be complete. State approximate price, describe equipment and give location. Address Box 910, care of "Domestic Engineering," Chicago, Ill. 1-18-25 2-1-8-15-22

## For Sale

**FOR SALE: PLUMBING, HEATING** and Tinning business, in Cambria Co., Penna. Doing about \$10,000 annually. Address: Box 885, care "Domestic Engineering," Chicago, Ill. 12-28-1-4-11-18

**FOR SALE: HEATING AND PLUMB-** ing shop in best town in central Missouri. Stock and tools with invoice about \$1,800.00 but can reduce. Good location, cheap rent, lease on building. No fake. Investigate if you mean business. Address Box No. 907 care "Domestic Engineering," Chicago, Ill. 1-11-18

**FOR SALE: LATEST MODEL OSTER** PIPE MACHINE. CAPACITY 1 INCH to 4 INCHES, INCLUSIVE. COMPLETE WITH COUNTERSHAFT, ETC. HAS NEVER BEEN USED; JUST PURCHASED FOR EXPERIMENTAL PURPOSES. FIRST CHECK FOR \$175 TAKES IT. ADDRESS BOX NO. 908 CARE "DOMESTIC ENGINEERING," CHICAGO, ILL. tf

**WANTED—TO SELL PATENT RIGHT** on refrigerator trap and closet flange. Liberal prices. Address Box 909, care of "Domestic Engineering," Chicago, Ill. 1-8

**FOR SALE—A PATENTED SYSTEM OF** vacuum heating. Will sell or take royalties. Will bear an investigation. Address Box 911, care of "Domestic Engineering," Chicago, Ill. 1-18

## WE PUBLISH:

**PRINCIPLES AND PRACTICE OF PLUMBING.** By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

**SEWAGE PURIFICATION AND DISPOSAL.** By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

**HISTORY OF SANITATION.** By J. J. Cosgrove. History of the plumber's craft from the time of the primitive man up to our own day. 88 illustrations. Bound in cloth; postpaid; \$1.50.

**HOT WATER FOR DOMESTIC USE.** How to install the different apparatus and systems for this purpose. Brimful of practical advice. Bound in cloth, 4¼x6¼ in.; 128 pp.; postpaid, 50 cents.

**A COMPLETE GUIDE TO TESTING PLUMBING.** A full treatise showing the necessity of testing new and old work; methods of testing fully described; 7¼x5¼ in.; seventeen illustrations. Postpaid, 25 cents.

**DEAN'S SYSTEM OF GREENHOUSE** Heating by steam or hot water; used for years; convenient and reliable; makes greenhouse heating estimating very simple. Flexible cloth bound, 5½x7¼ in., 46 pp. Postpaid, \$2.00.

**DEAN'S STEAM FITTER'S COMPUTATION BOOK.** Tables for finding cubical contents of rooms and radiation required, also general information on points of interest to steam and hot water fitters. Flexible cloth bound, 5x7¼ in., 90 pp. Postpaid, \$2.50

**PLUMBING ESTIMATES AND CONTRACTS.** By J. J. Cosgrove. Contains much valuable information for the master plumber, pointing the way to conduct the business of plumbing in business-like manner. Bound in cloth; 210 pages; 5¼x8¼ in.; postpaid, \$3.

**ROUGHING-IN HOUSE DRAINS.** Edited by John K. Allen. A complete guide to roughing-in plumbing from the digging of the sewer to the finishing length of the house-drain. 88 illustrations; bound in boards; 6¼x4¼ in.; 184 pages; postpaid, 50 cents.

**SANITATION IN THE MODERN HOME.** An invaluable guide to the architect, plumber, heating engineer and house owner, telling just what is necessary to make a home completely sanitary from the subsoil to the roof. 8x5¼ in.; 277 pp.; bound in cloth. Postpaid, \$2.00.

**TABLES FOR CALCULATING SIZES OF STEAM PIPES.** These tables furnish a method of sizing the pipes for low pressure steam heating based upon the loss of pressure per lineal foot, without laborious mathematical calculations. Bound in cloth; 4½x6½ in.; 47 pp. Postpaid, \$2.00.

**NOTES ON HEATING AND VENTILATION.** Third edition. This book is a resume of lectures delivered to classes in heating and ventilation at the University of Michigan. It is written primarily for the steamfitter and designer of heating systems. Reduced to as brief a form as possible, so that readers can readily find notes or data desired. Bound in cloth, 5½x8½ inches; 226 pp.; postpaid, \$2.50.

**AIR VALVES FOR STEAM HEATING** systems. By W. H. Wakeman, author of "Engineering Practice and Theory." Postpaid, 25 cents.

**WROUGHT-PIPE DRAINAGE SYSTEMS.** By J. J. Cosgrove. An invaluable aid to those who install iron pipe systems. Bound in cloth; 150 pages; 5¼x8¼ in.; postpaid, \$2.

**"RULES AND DATA ON FAN HEATING and Ventilation,"** or "Flow of Steam Through Pipes" will answer the questions that have puzzled you. Practical. Blue print form. Thomas Tait, Moline, Ill. 8-17

**MAKING THE BUSINESS PAY. LET-** ters of John Burton, retired successful plumber and steamfitter, to his nephew still in business. Practical, instructive, entertaining, a guide to better business. Cloth bound, 5½x7¼ in.; 168 pp. Postpaid, \$1.00.

**HEATING AND VENTILATING BUILDINGS.** By Prof. R. C. Carpenter, Cornell University. Describes the latest improvements in the art of heating and ventilation for the technical readers. Bound in cloth, 9¼x6 in.; 562 pages; postpaid, \$4.

**STANDARD HEATING SPECIFICATIONS AND CONTRACT BLANKS.** For low pressure steam and hot-water heating apparatus offers a dignified legal form for specification proposal and contract for the general use of steam and hot-waterfitters. Printed on linen paper; 14x8½ in.; 4 pages. Price of either steam or hot-water or mixed blank, 50 copies, \$2.50.

**A MANUAL OF TECHNICAL PLUMBING AND SANITARY SCIENCE.** By S. Barlow Bennett, Consulting Sanitary Engineer. Treats of every branch of the subject in a clear and practical manner; especially adapted to the needs of those making a thorough study of sanitation and public health. 9½x6 in., 300 pages, over 400 diagrams and photographs, bound in cloth, postpaid, \$2.00.

**A PRACTICAL MANUAL OF STEAM AND HOT-WATER HEATING.** By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth, 5½x8½ in., 359 pp.; postpaid, \$2.50.

**MODERN PLUMBING ILLUSTRATED.** By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

Address:

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago

Kindly quote "Domestic Engineering" in writing advertisers.



# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1050

CHICAGO, JANUARY 25, 1913

Vol. 62, No. 4

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## THE POWER OF THE PRESS.

THE greatest educator of the people of the United States today is the press. Few men have the temerity to go against public opinion as expressed through the newspapers and magazines of this country.

On the other hand, the greatest force for the education of the home owner and resident of city and country alike are these same newspapers and magazines. The power for good exercised by these factors in our daily life when used for the betterment of mankind is, we believe, not fully realized by the trade.

The master plumbers and steamfitters all over the country are to a large extent public benefactors deriving their profits, of course, from work done for the sanitation and comfort of the public.

As sanitarians their possibilities for furthering the general health of the public are indeed vast—their influence in combating unsanitary conditions in city or country are just as great.

Without some means of communication, however, between the master plumbers and fitters and the public there would be little accomplished toward the improvement of sanitary conditions in any community, with the consequent loss of the profits that would otherwise come to the plumber and fitter.

These opportunities afforded by local newspapers in spreading the knowledge for improving sanitary methods and general health and comfort are lying dormant for lack of use. These papers are willing

and ready to print as news matter, without cost, from time to time articles that will bring the public to a greater appreciation of what the plumber and fitter can do for them. In a measure this would be free advertising, but it is nevertheless most valuable because of the editorial sanction which it receives.

At the Wisconsin State Convention on January 16th, President Reeke emphasized the opportunities afforded by the newspapers of each community in spreading the gospel of sanitation. Local associations and individual members can by tactful methods secure the support of their local newspapers.

It was suggested by "Domestic Engineering" at the Milwaukee meeting that the newspapers of Wisconsin be enlisted in this publicity work and that each week we would print a short article that could be clipped from this paper, if desired, and handed to the local newspaper publisher for use in this way. These articles will be of interest to the public and will be written in such a way that no publisher could call them free advertising. They will be printed by us in heavy faced type that they may be easily distinguished from the rest of the paper and we would suggest that you look for these each week and put them to good use.

It would be well worth the efforts of local associations as well as individual plumbers and fitters to supplement these articles by display advertising in their papers, which could be done in such a way as to create much new business that otherwise would lie dormant.

Get from your local newspapers the co-operation and editorial assistance that they are glad to give you—use the weapon of publicity in fighting for the reforms that are needed—let the public know that you, as a master plumber, are first of all a business man. You are entitled to the same consideration by the public as any other business man—and the quickest and easiest way to compel respect is to earn it.

When your banker can say to the manufacturer or jobber, "Yes, he's good for anything he buys," then you have attained respect in a quarter where it counts. For the man who can pay for what he orders has received the benefit of the only kind of publicity that counts for anything—that of the confidence of the public.



# Ventilating a Modern Department Store

The Problem of Department Store Ventilation is One Presenting Peculiar Angles. This Store Has Utilized Modern Methods

THE correct ventilation of the modern department store is a question requiring scientific skill combined with mechanical ingenuity. It is unlike the ventilation of the school, the theater and the church, where people congregate for a certain time for a specified purpose. An ever varying crowd surges through its doors, masses about the counters on the various floors, dissolves, only to be renewed again and again.

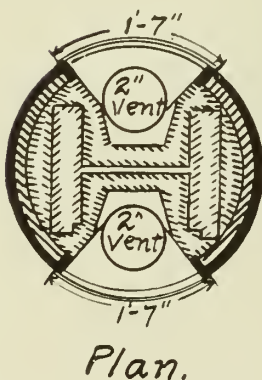
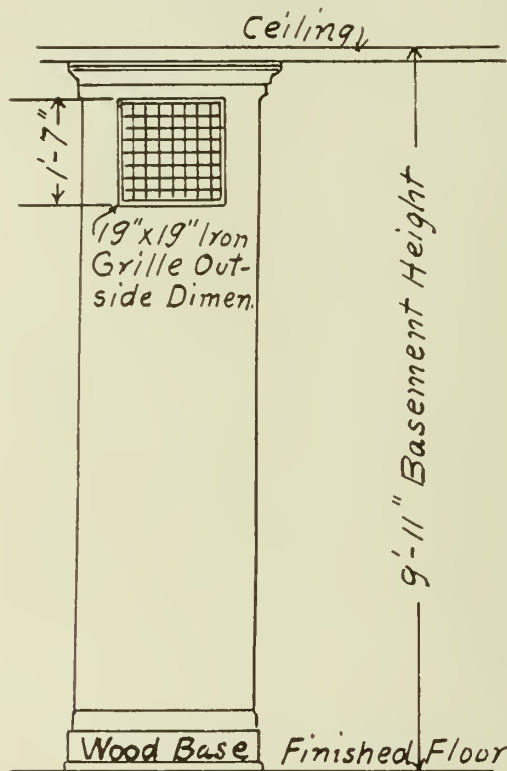


Fig. 1. Elevation and Plan of Typical Interior Column in Basement and Basement-Mezzanine, Showing Fresh Air Grille.

It is also a question of dollars to the proprietor, for if his establishment is found to be stuffy and close, or cold and damp, he loses custom. People wish comfort and will shop at the pleasantest and most attractive shop, the prices being right.

The building shown in our frontispiece this week is that of the department store of Gimbel Brothers. It is ten stories in height, not including the basement and sub-basement, and is located on Thirty-second street, Sixth avenue

and Thirty-third street, New York City. It is modern in every particular.

The system of ventilation in this store consists of forcing air in at or near the ceiling line and exhausting it from the

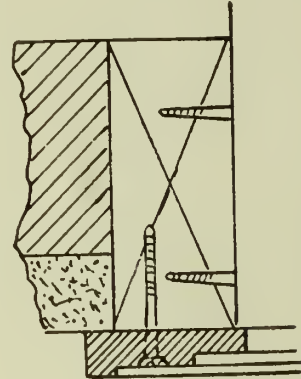


Fig. 2. Sketch of Wall Grilles at Ceiling.

floor line in the sub-basement, basement and basement-mezzanine stores. In the vestibules in the basement, basement-mezzanine and first stories the air is brought in at

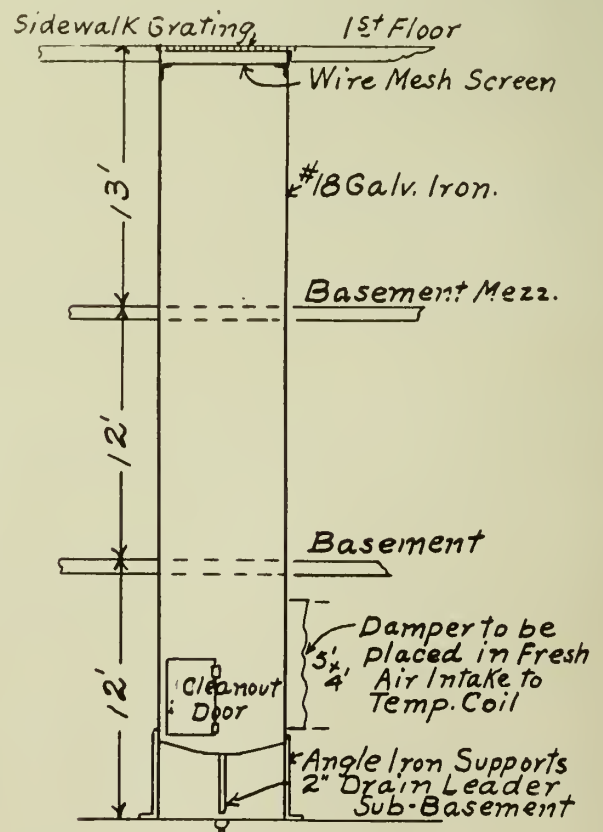


Fig. 3. Fresh Air Intake in Sidewalk.

the floor line. In the toilets it is exhausted at the ceiling or at the floor line.

Ducts located around the outside walls and other ducts brought up through the columns from the sub-basement



Fig. 4. Ventilation Ducts in Basement Showing Register Open Ings.

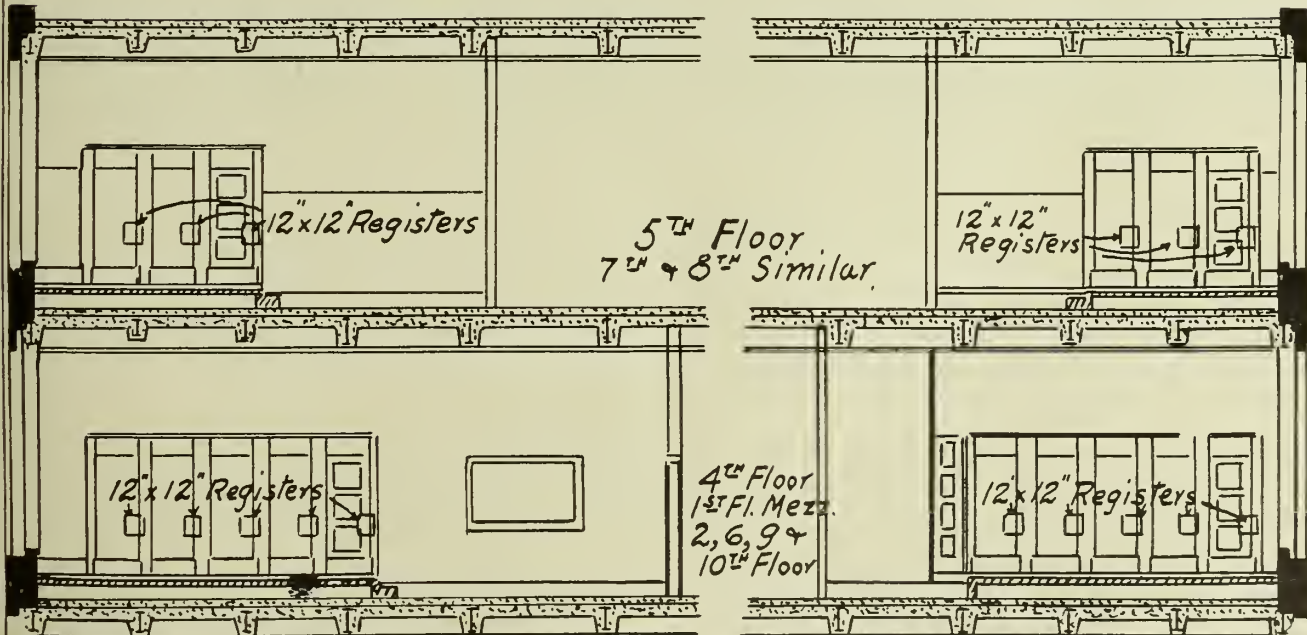


Fig. 6. Section Through Toilet Rooms Showing Location of Registers.



ceiling supply fresh air through grilles near the ceiling to the basement and basement mezzanine stories.

An elevation and plan of typical interior column in basement and basement-mezzanine, showing fresh air grille is given in Fig. 1.

A sketch typical of the wall grilles at the ceiling is also shown in Fig. 2.

The air is exhausted near the floor line through registers located around the outside walls and in the base of counters on the floor.

In Fig. 3 is shown one of the fresh air intakes located in the sidewalk, which is the general typical construction of the shafts. The intakes are connected to the fresh air

square feet area and greater are made of No. 22, those less than four square feet area are No. 24, except ducts in ground which are No. 18.

The ducts have angle iron frames and, in addition, are thoroughly stiffened at intermediate points of four feet apart with one inch angle irons, so that when they are carrying the maximum quantity of air, under maximum pressure, no vibration is imparted to the ducts.

All connections of ducts to fresh-air inlets and exhaust outlets are made through trumpet-shaped mouthpieces, flared out as much as the construction will permit.

In the basement and basement-mezzanine, cast-iron registers are provided made up in two parts, each register be-



Fig. 5. Ventilation Ducts Showing Register Openings in Basement.

chambers with No. 18 galvanized iron. Underneath the grating in the sidewalk is located a movable wire screen of one inch mesh, made of  $\frac{1}{8}$  inch wire with heavy iron frame.

In the fresh air connections to the tempering chambers are placed balanced sheet iron dampers, which are so arranged that they may be operated easily from the sub-basement or basement floor, as desired.

Air washers are located between the tempering coils and fresh air fans.

Each set of tempering coils is provided with a damper operated by means of a thermostat, arranged to maintain the temperature of the tempered air at 68 degrees Fahr. Dampers operated by thermostats are also provided for the hot air ducts and their by-passes.

Views of the ventilation ducts are shown in Figs. 4 and 5. They are made of galvanized iron. Those of four

ing provided with a valve operated by a glide movement.

The wall frames for the registers are supported and fastened in place with flanges for air tight connection with the ducts.

A section through the toilet rooms, showing location of registers in toilets, is seen in Fig. 6.

No fresh air is supplied to the toilet rooms or janitors' closets mechanically, this being introduced through grilles provided in the entrance doors.

The building was erected by the Thompson-Starrett Co., who also were the heating contractors, from plans by D. H. Burnhan & Co., architects, Chicago.

Marks: My old aunt had not been dead twenty-four hours when her parrot died too.

Parks: The poor bird died of grief, I suppose.

Marks: No. Poison.—Boston Transcript.

# Unintelligent Competition in Brass Goods

By S. Jacobsen

THE general belief is that combinations and consolidations of manufacturers stamp out competition and advance prices.

Promotors have been one of the large influences in creating this condition, yet a greater one has been the ignorant, unequal, dishonest competition in business, which has brought many industries to such a condition that their owners are willing to listen to the plans of a promotor, or any schemes which give promise of even partial relief.

The first thing done by a consolidation is to revise its price lists. Then a great cry goes up about trusts, as though it were a crime to be unwilling to sell goods at a loss or without profit.

Low prices are usually made by ignorant manufacturers who conduct their business by rule of thumb—men who have not the capacity to appreciate system, to say nothing of originating it.

Manufacturers of plumbers' brass goods are expected to sell their products in competition with any ignoramus, and meet any cut-throat competition when forced upon them, and often made in such manner that they are powerless to prevent it.

The ignoramus figures in this manner—that if Paul and Jones quote an article at \$1.00, they can make it for less, and so quote 90 cents. There is an absolute lack of system in everything they do, except their system of price cutting.

The question is often asked—why do not firms, which conduct their business on this basis, fail? They do. This country is strewn with wrecks of such firms, who fail time and again, compromise with creditors and then continue their unequal and ignorant competition.

Competition is industrial war; ignorant, unrestricted competition means death to some and injury to all; even the victor does not soon recover. We need the stimulus of competition to do our best. To it we owe our development. It is the fuel that feeds the fire of ambition, and up to a certain point it is a good thing, but like any other good thing it can be abused.

To stamp out competition would mean stagnation and death. If there were no prices to be obtained men would cease to put forth their best efforts, which constitutes progress and growth. A successful manufacturing concern is not produced by chance, but by intelligence persistently applied. Its profits are made as much by orders rejected as by orders accepted, as it knows where profit ends and loss begins, and when it comes to paying a customer to do his business it allows the other manufacturers to have that privilege.

The competition hardest to meet is not from the successful firm, but from the firm whose creed is—"So, on I go, not knowing"—"Tis blessed not to know." These are the firms who fail and whose competition often causes others to fail. The real cause for failures is largely the result of ignorance of the cost of production and doing business. Statistics are often quoted, which show that only a very small percentage of the men who embark in business on their own account succeed.

The reason for this enormous commercial death rate, in my opinion, is bad accounting, and in consequence, ignorance of cost of production. In doing business, many men accounted shrewd, have no knowledge of accounts themselves, and utterly fail to appreciate the real pur-

pose of bookkeeping and accounting, and act on the assumption that any boy or girl just out of school who can be hired at the smallest salary, and wholly lacking in business training, is competent to do their bookkeeping.

But the investment made in employing a competent accountant will yield large returns, as they give the management facts, not guesses, in the matter of productive costs. Years to come success will be won only by men who have exact and definite knowledge of costs.

It would be well for the manufacturers endeavoring to reduce cost, to remember that there are two mighty forces at work all the time to reduce the price just a little faster than the manufacturers can reduce the cost. These are the buyers and the salesmen, and the manufacturer who is ignorant of his cost is usually ignorant of conditions in other things connected with his business, and it is at the mercy of his own salesmen and the unscrupulous buyers.

While it is admitted that the salesman's burden is not an easy one to bear, as he hears from morning to night one story from the buyer. "He is not in it, not even a little bit; your prices are too high. We have quotations much more favorable. So-and-So have agreed to allow all freight charges. Another will give from 90 to 120 days, but we will give you preference if you do as well as others, because you are one of my friends, etc." Such statements may be true and may not. And if you could know the truth such prices have never been quoted, and no special terms existed up to that time except in the fertile brain of the buyer. These statements are simply made up to be granted by competing manufacturers.

The traveling man will say to his house that he cannot get the business and retain his trade unless the concessions asked are granted. The manufacturer, who is ignorant of his costs and does not know where the profit ends and loss begins, grants the concession asked for.

Let us set about as intelligent manufacturers of brass goods to get at our costs in order to get a price for our goods, which will leave a reasonable profit on the goods we manufacture, and not let the buyer or our salesmen set the price at which we are to market our goods.

The discussion of cost and employment of expert accountants and cost finders by each separate brass manufacturer, as suggested at our New York meeting, will be the greatest step made by the brass manufacturers for many years, and one which should have the hearty support of all. While the cost will be considerable to start, it will eventually be a very profitable investment, and will put all the manufacturers on a sound and profitable basis.

---

## An Ambiguous Question.

---

"That's a swell umbrella you carry."

"Isn't it?"

"Did you come by it honestly?"

"I haven't quite figured out. It started to rain the other day and I stepped into a doorway to wait till it stopped. Then I saw a young fellow coming along with a nice large umbrella, and I thought if he was going as far as my house, I would beg the shelter of his bumber-shoot. So I stepped out and asked, 'Where are you going with that umbrella, young fellow?' and he dropped the umbrella and ran."—Houston Post.



# Let Us All Read, Think and Co-operate

By Al. W. Delforge, Secretary Green Bay Master Plumbers' Association, and President Fox River Valley Association

THE article written by Elbert Hubbard, in the New Years' edition of "Domestic Engineering" is in my estimation, the "one best bet" amongst the many very excellent articles that appeared in that issue.

While the technical articles on Salesmanship, by Stanley L. Krebs; the Stock-keeping system by B. C. Bean; and the various other topics were all very interesting, educating and showed a true progressive spirit—still, we cannot neglect or overlook the most important part of our profession, that which above all else, tends to make ours a progressive science and that is as Mr. Hubbard says: "Sanitary Plumbing."

We all realize the necessity of better business methods and, no doubt, every individual and firm engaged in the plumbing business appreciates the efforts of "Domestic Engineering," and the many master plumbers who have devoted so much time and study in bettering conditions in a financial and business way. "Let the good work go on"—but occasionally let us have a good, plain, every-day talk that we can all understand, similar to that by the greatest of American writers—Elbert Hubbard.

Joaquin Miller says that Elbert Hubbard is the only man in America who has the English language firmly by the tail. Alfred Henry Lewis says of him: "Young writers intent on style, can do no better than read Elbert Hubbard. He says big things in tabloid." Robert Barr says: "Elbert Hubbard is the greatest writer, vocabulary and range of ideas considered, that the world has ever seen, ancient or modern."

We must agree with these prominent writers, for when anyone not connected with the craft says so much in tabloid, let us take off our hats to him.

It occurred to me after reading his article, that he could be featured at the coming National Convention, the same as our friend, Mr. Morgan, of Detroit, was at Galveston, to address the meeting; this discourse to be along the same lines as his article in your New Years' Number, and as he is considered one of the best lecturers in the country, it would be an incentive to travel many miles to hear and see him.

I may have said a whole lot about Mr. Hubbard, but I was prompted by this fact, that it's such a rare occurrence to read or hear such a topic from one not directly connected with the cause, that it does one's heart good, and in my case, I could not let it pass unnoticed.

Very few persons understand the plumbing business and I believe I am right when I say that it is the most misunderstood and most important trade in existence today. However, if the same progressive spirit that is so enthusiastic now throughout the country continues, we can predict that a few years hence, the plumbers will be rated next to, let us say, the lawyers.

Let us go back to being misunderstood!

Ralph Waldo Emerson, to whom we are indebted for our adopted motto which is so true—"They builded better than they knew," says in one of his essays, of which I present only a portion: "**misunderstood!** It's a right fool's word! Is it so bad, then, to be **misunderstood?** Pythagoras was misunderstood, and Socrates, and Jesus and Luther and Copernicus and Galileo and Newton and every pure and wise spirit that ever took flesh. To be great, is to be misunderstood."

Isn't it a pity, that Emerson could not have lived to see the present up-to-dateness of the average master plumber. I am sure that they would be included with the "pure and wise" he writes of. (We should worry)!

In conclusion I wish to say, that in order to accomplish the reforms and changes that we are striving for, we must have harmony in our local organizations. Without harmony, there's nothing doing. I can point with pride to the Green Bay Local. The local meetings are always fully attended and after meetings there is the usual pocket billiards, or bowling. Twice a month during the game season there is a day's hunt, after which we partake of a feast. Ducks, prairie chicken, venison, partridge and rabbits, have been devoured the past season, and the following well known personages will verify my statement, they being present on several occasions: E. N. (Brick) Murphy, Walter Noble, John Finch and Billy Foerstel, of the Murphy Supply Co.; Chas. Madden, Green Bay's plumbing inspector; Billy Meltzer, with L. Wolff



Joe Thomas and Ed. Garot, Both Green Bay Master Plumbers, After Successful Hunt Near Amberg, Wis. They Bagged 24 White Rabbits.

Mfg. Co., Jim Smith, with the H. Mueller Mfg. Co., and several others besides the Green Bay members. Several weeks ago, Mr. Woesser, master plumber of Iron River, Mich., happened along with a "saddle" and there was something doing in plumberdom. Our only obligation to Mr. Woesser was a promise to be his guest next June, fishing trout. He has a lodge near a stream that abounds with trout and according to him, the trout are so numerous that you have to hide back of a tree to bait your hook.

Well, anyway, that's the spirit of good fellowship that exists in our local—I should say locality, as the same good feeling exists throughout the Fox River Valley. Our Fox River Valley Club meets every two months and it's always a pleasure to be present at these meetings, as perfect harmony exists at all times. Then we have an annual family picnic in August, over two hundred being present at the last one, and a most enjoyable time was had, thanks to the Picnic Committee. Every member, with the possible exception of one or two, was present with their families, or intimate friends.

You must understand that we are not organized for pleasure only; these facts are merely mentioned to show that there is "harmony" and it works fine.

# Questions and Answers

## TWO HOT WATER HEATING PROBLEMS.

Editor, "Domestic Engineering":—Will you kindly tell me how to solve the following problems on hot water heating installations:

The trouble in the first instance is that the circulation stops at X. First floor radiator heats O. K.; the return from second floor stops at X. The supply on flow pipe to second floor gets very hot. After boiler temperature goes to 160 deg. there is no trouble at all but on low temperatures it is a dead one. It is an open tank gravity job. These two radiators are within 6 ft. of boiler, so that I carried the return back independent and connected into side of T at bottom of main return, as I invariably do with radiators close to boiler. I will also state that I have been very successful with all of my heating work, take pains with running of pipes to give uniform pitch and ream all pipes thoroughly. This permits the use of a size smaller pipes than many advocate. In detail, there is a hop up of 8 in. where I used a  $1 \times \frac{3}{4} \times \frac{3}{4}$  T facing T to shoot straight for hole under union ell. Out of top of T I used a short nipple and ell facing hole for riser to second floor. On second floor radiator the pipe is put in just as sketch shows it. It came just right to leave the  $\frac{3}{4} \times 1\frac{3}{4}$  T looking up under hole and continuing 1 in. to expansion tank. I have thought the trouble was due to expansion backing up the return line and retarding circulation.

Both of these connections are not quite according to Hoyle but I fail to see why they do not work. Both radiators being same size, the second floor should work sooner than first floor. If the latter were giving trouble I would not be much surprised. I think the trouble could be corrected by carrying either one or the other of the returns back to boiler and connect independently. The job is 6 miles out of town and for want of further time I left it

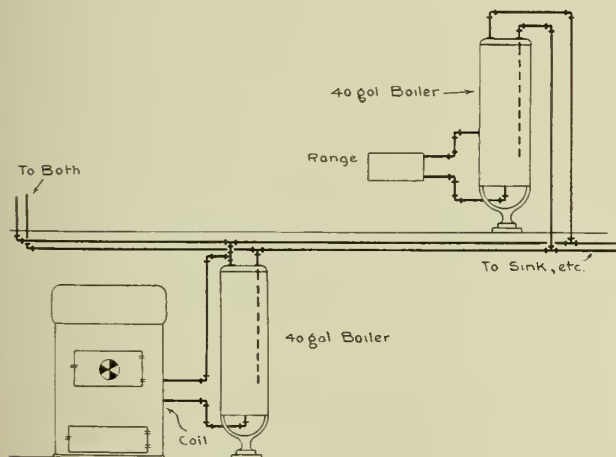


Fig. 1.

for a more convenient time when pipes and boilers are to be covered. The vertical hop up could not very well have been avoided.

Problem No. 2.—I was recently called on to install an extra range boiler in cellar to be heated with a coil in hot water boiler. The range boiler on first floor was not

giving sufficient hot water for domestic use. The water in this boiler was heated from the regular water front, and supplied both on second floor and kitchen sink and laundry trays on first floor. When both boilers were under fire we got nearly hot water out of cold bibb at sink and it would continue so as long as there was any hot water there. As soon as either valve over boiler was closed there was no further trouble but as soon as it was opened it would run hot out of cold bibb.

Both boilers are supplied with a  $\frac{1}{2}$  in. supply pipe and

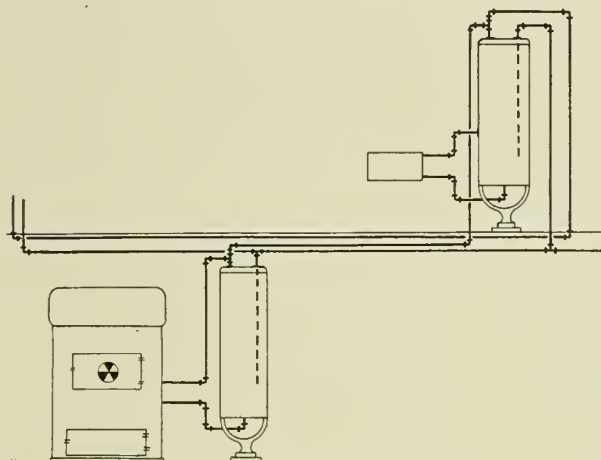


Fig. 2.

boiler tubes, and connected direct to city pressure which is about 90 lbs. I presume a check valve on the line would remedy it but then there would be no chance for expansion back into street main. If there is any way to connect these boilers to work together I would like to learn how. I will not make any attempt to reproduce all of the crooks and turns in the water lines as there are a good many, but will give a rough sketch of same. Both boilers heat satisfactorily, but do not deliver water properly.

I was skeptical before installing them and told the owner so, but he thinks it can be arranged O. K.

For temporary relief I placed a valve at X which is kept closed, I might add that when warm water is drawn at any point it comes from boiler in cellar, which gives the kitchen boilers hotter water. Pipes are free from obstructions and tube is O. K.

Dansville, N. Y.

S. M. W.

In Fig. 1 we reproduce the job which is giving trouble. Our opinion is that the two boilers are working against each other, and that the only proper solution is a change in the piping. Certainly no check valve should be used.

In Fig. 2 we show one way to remedy the trouble. From this illustration, it will be seen that all hot water that is generated passes to the upper boiler before it is delivered to the fixtures. This method may take more piping, but it will do the work that is required in a satisfactory manner.

## INFORMATION ABOUT SEPTIC TANKS.

Editor, "Domestic Engineering":—Will you please show a cut of a septic tank and let us know what kind of chemicals are used in operating it?

New York.

T. A. McCarthy.

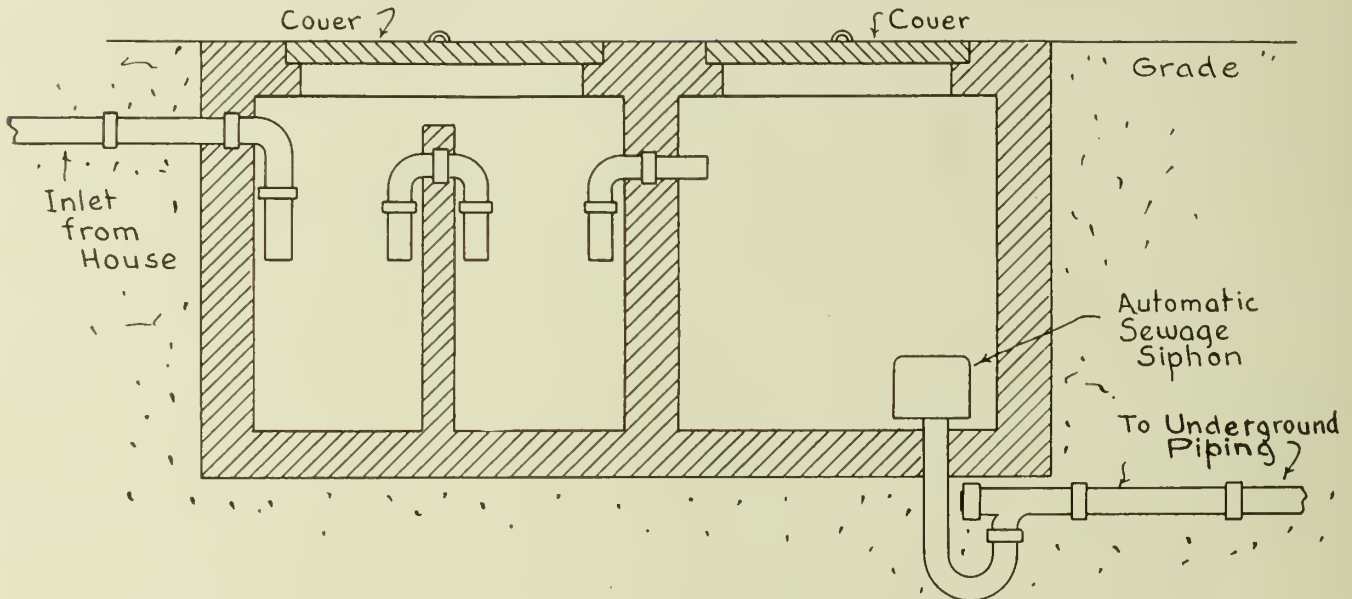
There are many different designs for septic tanks, and they may be made of brick, stone or concrete construction, and sometimes are even constructed of glazed earthenware pipe and even of barrels.



Our illustration will show a septic tank built on good lines, having three separate chambers, although many are made with only two. Better work is done with three chambers. One chamber overflows into the next, and in the last chamber an automatic siphon is generally used, which operates when the level of the purified sewage reaches a certain height. The siphon often discharges into a system of open-jointed tiling laid below the surface of the ground, the liquid leeching away into the surrounding soil, and purifying itself by filtration.

It is far best to use a siphon than to overflow constantly into such an underground system, as experience

is shut off and the system connected direct to the pump the force from the pump will cause all hot water connections to flow freely, even after the pump has been disconnected and the supply tank, which is of open top pattern is connected. They will all continue to work as free as a system could work for the course of two or three hours and finally stop. The cold water will continue to flow until the tank empties. There seems to be no special place so far as the height of the water in the tank is concerned, where the stoppage of hot water may take place. The bottom of the supply tank is about 6 inches higher than the highest water connection on the range boiler and



Sketch Showing Construction of Septic Tank Built on Approved Lines.

proves that such a filtering system needs periods of rest, so that oxygen can penetrate and help in the process.

No chemicals are used in the septic tank, and that is one of the fine points about it. After the tank has been operating for a few days, it will be found that a certain kind of bacteria have begun to breed, and these attack the sewage and reduce it to liquid. They will reduce even such substances as bones, and the only substances practically that are not thus reduced are those of mineral or metallic nature.

This action takes place most satisfactorily when light and air are excluded, and occupies about twenty-four hours, which fact naturally governs the size of the tank.

After a time a thick, heavy coating covers the surface of the inlet compartment and on the under side of this mass the bacteria have their best opportunity.

Therefore, the inlet is carried down so that this coating will not be disturbed, as also the overflow.

This gives in general the idea of the construction and operation of the septic tank, which is a wonderfully successful device if constructed and operated under proper conditions.

#### A PRIVATE WATER WORKS SYSTEM THAT DOES NOT WORK RIGHT.

Editor, "Domestic Engineering":—Enclosed you will find a sketch of a private water works system that is giving trouble to its owner. It seems to be a case where the water fails to seek its level. The trouble is as follows: No water will flow from any of the hot water faucets at times. When the flow ceases if the outside tank connection

the tank is about 8 feet high. There seems to be not the slightest stoppage in the system either on the hot or cold water-side, in fact, the entire system has been taken down and re-installed but the results are the same. If you can

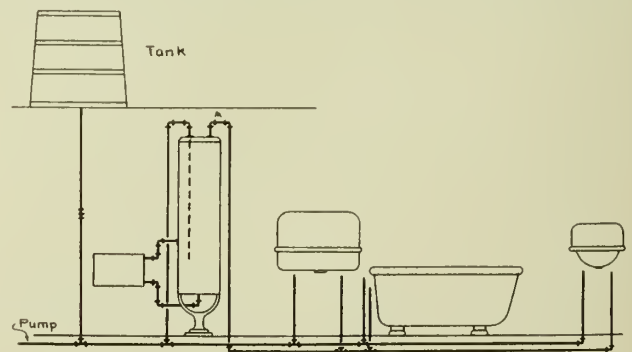


Fig. 1. An Unsatisfactory Water Supply.

give us any information as to what can cause this trouble, we shall be pleased to hear from you.

Centralia, Mo.

C. M. C.

We think the trouble with this job is easily located. Our opinion is, that with such a very slight head, the pressure is not great enough to force the air out of the high point A, on the hot water pipe above the boiler, and that this is the cause of the whole trouble. The remedy, however, is a very simple one.

If an expansion pipe is connected, to the high point, and carried up to and over the top of the tank, with an

open end turned down, any expansion and any accumulation of air will be taken care of. This pipe can be of small size.

### ARE THESE LAYOUTS PRACTICAL?

Editor, "Domestic Engineering":—Will you kindly inform me if the work hereafter described is practical.

Lynn, Mass.

P. T. R.

In Fig. 1 we show the work to which P. T. R. alludes, and we are free to say that we do not believe it will work, with satisfactory results.

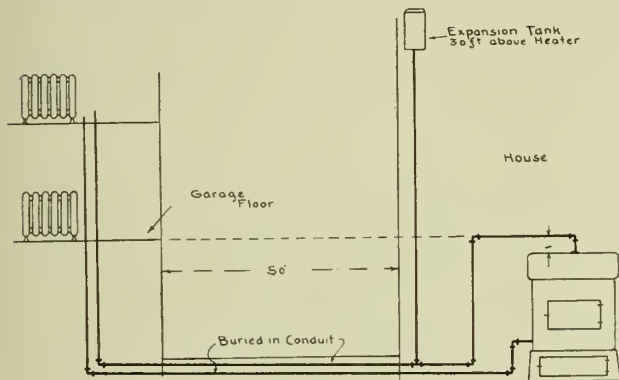


Fig. 1.

As there are no measurements given; other than the distance between house and garage, it is impossible to tell what might happen in the way of circulation. We would suggest that the job be installed according to our plan, as shown in Fig. 2.

The fact of raising the flow column up above the second floor of the house, will give the water in the system suffi-

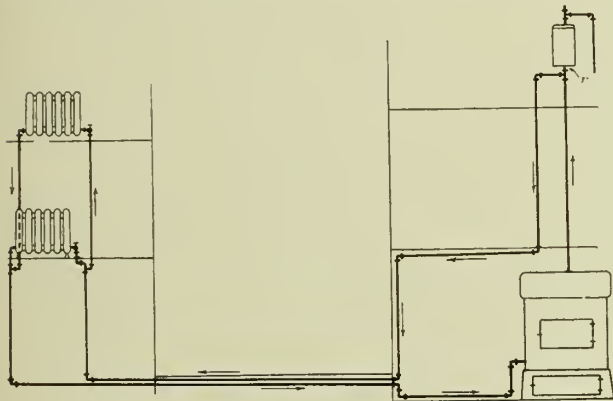


Fig. 2.

cient energy to carry over to the garage in good shape, and a sufficient difference in the specific gravity of the flow and return, to make a good circulation.

### Who Kicked Him Out?

The other day in answer to a letter sent out soliciting a subscription from an officer of a local association we got this interesting reply: "I am no longer the secretary of the master plumbers association of ..... In fact, I am in no way connected with that organization. I now have no use for your magazine."

It would seem to indicate that the officers of all local associations really ought to have "Domestic Engineering."

### ECONOMY IN ADVERTISING.

The other day when William Marion Reedy, of St. Louis and the round world, started for his office, his wife said: "Billy, our cook has given notice. We will have to get another one. Won't you please write an ad and put it in the Globe-Democrat?"

So Billy wrote the ad—scribbled it off on the back of an envelope as he rode down town on the street car.

And here is the advertisement:

#### HELP!

"We may live without poetry, music and art,  
We may live without conscience and live without heart;  
We may live without love, we may live without books,  
But civilized man can not live without cooks."

I want a cook who can cook cookably for a fat man and his frau. Just plain cooking for plain folks—on male side of the house. No chef de cuisine I crave—just a cook. Mild and gentle disposition preferred. Out on the farm, close to Nature. Cuckoo of a place for a cook. Pay, anything short of a Wall Street campaign contribution. Victrola in the kitchen; records of all classic operas. Picture shows accessible by automobile. Call up Mrs. William Marion Reedy, Webster 573M, or Mr. Reedy, Bell, Main 2147. Come on, ye cooks!

Advertisements are good or bad as they bring results. This advertisement brought a thousand replies. There was a deluge. Mr. and Mrs. Reedy were submerged with applicants. They got their cook, all right, and they might have secured a thousand.

Among other responses were applications from every other newspaper in St. Louis, asking the privilege of inserting the advertisement, and offering to print it gratis.

It was different, and the idea of course was that it would attract attention and liven up the advertising columns of their respective papers.

It was hardly worth while to write so good an ad for simply one cook but the moral is obvious: the conventional advertisement is costly, passe, out of the game, obsolete. If you can write a notice that will be passed along, read and re-read, that will make people laugh and make them think and set them to work circulating your advertisement, you have achieved.

This little ad of William Marion Reedy's was read by a hundred times as many people, probably, as read the regular regulation thing. So as a matter of economy, improve your copy—arouse the interest of your readers and get better results.—Elbert Hubbard in *The Philistine*.

#### Fungi.

The Department of Agriculture has sent out a circular letter concerning fungi which will both enlighten and amaze the fascinated reader. For instance:

"Definition of fungi, section 6: The term fungi is understood to mean all nonchlorophyll-bearing plants of a lower order than mosses and liverworts, non-chlorophyll-bearing thallophytes."

Seems simple, doesn't it?—Cleveland Plain Dealer.

#### Backward.

"Isn't that fellow ever going to propose?"

"I guess not; he's like an hour glass."

"How's that?"

"The more time he gets the less sand he has."—St. Paul Pioneer Press.



# Annual Convention of Wisconsin Plumbers

The Meeting at Milwaukee on January 15 and 16 the  
Most Successful in the History of the State Organization

**M**ILWAUKEE, in spite of lowering skies and March breezes, gave to the members of the Wisconsin Master Plumbers' Association a warm welcome on the occasion of their nineteenth annual convention on Wednesday and Thursday of last week, January 15th and 16th.

The convention was held in the Elks' Hall, 450 Jefferson street, which being centrally located and close to several of the principal hotels, made an ideal convention hall.



Elks' Club, Milwaukee, Where Convention was Held.

The meeting was called to order shortly after ten o'clock and President Geo. F. Reeke of Green Bay in his opening remarks spoke of the importance of such a convention to each member and emphasized the fact that each moment of the convention sessions was precious and that all should endeavor to get the full value of the meetings to justify the expense they had been to in coming. All members were urged to take part and make sure that they attended each meeting.

Fred Kuetemeyer, president of the Milwaukee Master Plumbers' Association, was then introduced and welcomed the membership of the state to Milwaukee. He said he was proud to be president of such a progressive association, as that of the city of Milwaukee, and he suggested that the members grab any Milwaukee man and they would be given the best attention and steered correctly about the city. He also stated that he believed Milwaukee had one of the most progressive organizations in the country.

Greetings were also received from Edward Bratley, who stated that he would be present in spirit though sick in bed.

President Reeke emphasized the remarks of Mr. Kuetemeyer and stated that if it were not for the spirit of enterprise that the Milwaukee Local Association had shown it would have been impossible to accomplish what had been done in the organizations throughout the state.

After the appointment of Walter Dusold as sergant-at-arms, the following committees were appointed:

Credentials: Walter Dusold, Milwaukee; C. H. Meyer, Flatteville; Joseph F. Lapitz, LaCrosse; J. H. Trane, LaCrosse; Edward Garot, Green Bay; B. J. Laughlin, Antigo.

Auditing: D. Polacheck, Milwaukee; Charles Snyder, Janesville; N. P. Molter, Wausau; D. Osborn, Beloit; Hugo Lippert, Milwaukee.

Resolutions: P. H. Murphy, Milwaukee; George Mueller, Oshkosh; Mr. Schoenleben, Racine; H. C. Horst-meyer, Madison; S. V. Hanley, Milwaukee.

Grievance: Fred E. Green, Janesville; E. Habermehl, Milwaukee; Otto Junck, Sheboygan; F. L. Haertl, Neenah; J. M. Phelan, Manitowoc.

President Reeke then read a letter from National President Frank J. Fee regretting the fact that he could not be present to address the meeting and meet the members, but stated that the executive committee thought best to expend the money necessary for travel so that the members of the national committee could meet with the state conventions where more need was felt for organization.

Wm. H. Halsey was then introduced and extended the compliments of the season from the national officers. He also stated that no mid-winter meeting of the national board of directors would be held and that the money thereby saved would be expended in organization work instead. He stated that it was the nineteenth convention of the Wisconsin State Association that he had attended, and in fact he had never missed any.

Mr. Reeke then read greetings from Mr. Grassler of Milwaukee, who stated that he could not be present, but was with the association members in spirit.



Wisconsin Plumbers in Front of the Elks' Club. Newly Elected President Hanley in Foreground.

The roll was then called and badges distributed to all members in attendance. The officers of the Milwaukee Association, including "Pa" Goodman, the patriarch of the convention, were then introduced to the members.

President Reeke told that when doing some organization work at Superior, Wis., he had the pleasure of meeting one of the live men of northeast Minnesota at Duluth. He then introduced Frank H. Farrell. Mr. Farrell told of organizing the local association at Duluth about a year ago and stated that if the officers could get

the Minnesota Association as well represented throughout the state as Wisconsin seemed to be they would be exceedingly well satisfied.

Communications were received from President W. W. Hughes of the Minnesota State Association inviting the officers and members to meet with them February 19th and 20th at Minneapolis. He said in his letter that the convention was to be held on those dates on account of the Minnesota Retail Hardware Dealers' Association meeting at the same time. It is hoped that a number of the hardware men who are in the plumbing business can be induced to become members of the plumbers' association. He emphasized the attitude that the members would take in doing association work, looking at it from a standpoint of "What can I do for the Association" instead of "What can the Association do for me." Mr. Schuh also read a letter from Mr. Hughes asking about the Plumbers' Mutual Liability Insurance Company and its operation.

Mr. Green introduced a motion that two members be sent from the Wisconsin Association to Minneapolis at the time of the convention in February to assist the Minnesota Association in furthering their organization. The incoming board of directors was authorized to appoint this committee, the expense to be paid by the Wisconsin State Association.

In introducing Mayor Bading of Milwaukee, Fred Kuetemeyer, president of the Milwaukee Association, stated that the Mayor was a man who had redeemed the good name of Milwaukee after two years of extravagant administration and that he was an expert on sanitation and well posted on the ever important question of sewage disposal. The present effort to change the sewage disposal system could be credited to him, Mr. Kuetemeyer stated.

Mayor Bading assured the plumbers if there was anything they wanted in the city that they could not get, the city hall was there to serve them. The Mayor then explained the efforts that were being made to change the plan of disposal of sewage from delivery direct to the



"Six-Cylinder" Hanley, of Milwaukee, Newly Elected President of Wisconsin Master Plumbers' Association.

lake to a system of septic tanks which it was proposed to put on the south side of the city. He stated that the city water supply was being polluted and that it could not go on forever without becoming a serious menace to the citizens. He stated that it would require \$15,000,000 to put in an adequate disposal system and that it was not an easy matter to divert the sewage to a central location and handle it in septic tanks. The plan now proposed is to have an independent commission that has no political affiliation to handle the matter and arrange

the financial part of it so that the payments would be made for a period of fifteen to twenty-five years.

He stated that the plumbers are in a position to carry on educational work in their own cities and should use their utmost influence to prevent the pollution of the water supplies of those cities by their sewage.

Chicago, according to Mayor Bading, was the first city to adopt stringent measures of protecting the water supply of Lake Michigan. After the drainage canal was completed the number of typhoid cases in Chicago decreased three-fourths. Chicago now has a much lower



From Left to Right: Geo. F. Reeke, Green Bay, President; F. E. Green, Janesville, Treasurer; Jacob Schuh, Milwaukee, Nat. State Vice-President; L. Sonntag, Sheboygan, Vice-President; P. H. Ryan, Appleton, Secretary.

mortality rate from this cause than Milwaukee. Several years ago the Lake Michigan Sanitary Association was organized in Chicago to make analyses of the condition of the water on the shore of the lake in our various cities and through different commercial bodies this work was prosecuted. They learned that the pollution of the water of Lake Michigan extended three miles from the shore in the vicinity of the larger cities. He also emphasized the need of more care in the sanitation of summer resort colonies and the various homes and camps where many of the city people spent their vacations. The water supply adjacent to these colonies was often polluted and the number of cases of malaria and typhoid always increased at the close of a summer outing season. On account of the ice supply coming from many of the small lakes of Wisconsin, special attention should be given to this subject and the plumbers should work diligently to educate the public to the appreciation of adequate sewage disposal facilities.

Mayor Bading told of the visit of some foreign engineers and investigators to Milwaukee recently. As they were looking out of the windows of the waterworks station a German member of the delegation asked what was done with the sewage from the city and the Mayor stated that the water for drinking purposes was pumped out of the lake without being treated and that the sewage was then pumped back into the lake. The German then said, "Mr. Mayor, you people are not civilized."

President Reeke emphasized the suggestions of Mayor Bading in his remarks following the mayor's talk and told



of the efforts that were being made to pass stringent sanitary laws and of the results it was hoped to accomplish at Madison before the Legislature this spring. He invited the mayor to assist in the work before the State Legislature. He also mentioned the work of the journeyman plumbers of Wisconsin, who are working for the same law and deplored the fact that many of the masters seemed to be too busy to give as much co-operation to the journeyman as should have been done.

#### WEDNESDAY AFTERNOON SESSION.

It had been planned to have a talk by E. V. Kellogg on the Kellogg-Mackay Co., Chicago, on "Progressive Methods of Doing Business" but on account of illness from ptomaine poisoning it was impossible for Mr. Kellogg to be present.

The report of the committee on credentials was received

true of all retail lines to such an extent that it was deemed wise to organize a "National Federation of Retail Merchants," the first convention of which was held at St. Louis, Mo., last November. I recommend that action be taken at this convention that the Wisconsin State Association become affiliated with this organization to further the objects for which it stands. This organization is working, among other things, to prevent the abuses anticipated from the parcel post law and to the misinterpretation of the Sherman law. Honest advertising laws should be passed to fortify the trade against methods used by many mail order houses and other advertisers fraudulently putting before the public the merits of their goods.

Communications from the State Association of Journeyman Plumbers and conferences with the members of their committee have been had to further the efforts toward securing the passage of a new state plumbing law before



A Portion of the Members and Guests of the Wisconsin

and following this was the reading of the president's annual report by Mr. Reeke.

#### Extracts from Report of President Reeke.

It was almost a foregone conclusion that the association would continue to prosper in 1912 since the spirit of enthusiasm prevalent at Oshkosh a year ago was radiated through the activities of the entire year of 1912. The success of the Wisconsin association is largely due to the work of the district organizers, which plan was adopted some two years ago. Those of you who belong to one of the district organizations can bear out this statement and those who have not yet a district organization should mingle with the members of other parts of the state who compose such organizations.

We should not consider the dues of our state organizations as an expense, but rather as an investment which will repay us many fold in direct and indirect benefits.

There are still many evils to be corrected, but this is

the next legislature. The journeymen organized the Wisconsin Publicity Bureau for the purpose of securing thorough information on sanitary conditions of the various communities. An article by Elbert Hubbard along this line impressed me so forcefully that I requested the editor of "Domestic Engineering" to forward copies to one member in each city, requesting that member to have the article published in his leading newspaper. I consider it absolutely necessary to enlighten the public by reprinting articles of this nature whenever and wherever occasion demands, thereby giving our purpose wider publicity.

Other subjects that should receive our attention is the matter of the \$100,000 trust fund proposed by Past President A. C. Eynon to further the interests of the National Association of Master Plumbers.

Another matter that should be considered is that of requesting the manufacturers to revise the present price lists so that they may be put on a more uniform basis.

I thank you for the confidence you have shown me and

after three years of service must decline to serve you further in an official capacity on account of business reasons and sickness in my family.

After reading the president's report, Secretary Ryan read the minutes of the last meeting and the nineteenth annual report of the secretary. The treasurer's report was read by F. E. Green. This showed a total of about \$1,000 more in the treasury than a year ago, which with the increase in membership, made an excellent showing. The treasurer's report was referred to the auditing committee.

The resolution committee reported on the proposition of purchasing a large United States flag with the name of the state association lettered thereon. This was referred to the incoming board of directors.

#### Talk by W. A. Decker.

After the business of the meeting had been disposed of, President Reeke asked W. A. Decker of Grand Rapids,

Mr. Decker went into detail on the Oldfield Bill, which is now before Congress and stated that section two of this bill, if passed, wipes out the right of contract on the resale price. It would, therefore, make it impossible for a manufacturer to fix the selling price of his goods, which in that case would be injurious to the plumbing and heating fraternity as well as other merchants. In Canada the law allows the retailers to get together, and the same conditions should exist in this country.

#### Liability Insurance.

Mr. Schuh of Milwaukee told of the work of the Milwaukee Mutual Liability Insurance Company, which now has seventy-one members. He offered the members in the state an opportunity to utilize this company for their own liability insurance and Mr. Murphy suggested that the district organizers take up the extension of this work.



Master Plumbers' Association at Milwaukee, January 15, 1913.

Mich., who was scheduled to speak the following day, to make some remarks. In his talk he brought out the question of honest advertising, a bill for which the National Federation of Retail Merchants had prepared for presentation before the legislature. Mr. Decker urged the passage of this bill, stating that it would be for the benefit of every man engaged in business and that no publication nor newspaper would be injured. This would make real advertising of greater value and would assist in fighting the mail order evil. Mr. Decker stated that the expense of the mail order houses easily ran as high as 28 per cent and that their profits came in many cases from dishonest advertising of their goods. Mr. Decker also spoke of those present at the National Federation of Retail Merchants at St. Louis there being but Mr. Haviland of Illinois and himself present representing the plumbing interests. He stated that the man who fools himself is the biggest fool of all and urged co-operation with the other retail merchants.

#### THURSDAY MORNING SESSION.

The session Thursday morning opened by President Reeke urging every member to write his congressman to help with the plumbing law now before the state legislature and to send photographs and drawings of defective plumbing that would help to impress the legislators with the importance of the new law.

#### W. A. Decker Speaks on "Loyalty to the Association."

In Mr. Decker's talk on Thursday morning he stated that he was not an orator but had been in the plumbing business long enough to realize some of the things needed by the trade. He stated that loyalty was the keynote, both to each other and to ourselves. The loyalty of the Wisconsin members was self-evident and the members realize that by attendance at this convention they can gain more than by staying at home. There is, of course, still room for improvement. Loyalty is like charity, it begins at home.

Association officers are in a measure martyrs and the



members many times do not appreciate what it has cost them and especially President Reeke, to attain success in his office. A small army working together can accomplish more than a large one. This is as true of the mail order houses, who are intensely loyal to their own interests, which was evidenced in their work on the parcel post.

Mr. Decker told about the parcel post and showed where it helped the mail order house competition and deplored the fact that the plumbers as an organization had not done what they could to work against it.

Loyalty to competitors was another point on which he elaborated. Each member could help his competitors wonderfully by passing along his experiences, which had



Some of the Boys at the Entrance to the Elks' Club.

cost him much to learn. Loyalty to the wholesale houses was another point which aroused interest.

Mr. Decker thought that the trade papers should have greater co-operation from the members, and stated that if the circulation of the trade papers had to be limited to the members of the association the papers would have to go out of business. He commended the papers for their work against mail order advertising and urged the members to be loyal enough to subscribe to the trade papers of their own trade, and to read them regularly as they came.

Loyalty to the trade itself when the members are called robbers and thieves was urged, and it was insisted that it was the business of each member to stand up for the dignity and business-like methods of the trade. The local chamber of commerce could do much to help in this work if the Master Plumbers' Association would go to them with logical arguments.

#### Business of the Meeting.

President Reeke read a telegram from Louis A. Eggert, president of the Spokane, Wash., association, sending greetings.

A resolution to affiliate with the National Federation of Retail Merchants and to subscribe one hundred dollars to that organization was referred to the incoming board of directors.

A resolution recommending an honest advertising law in the state and the "Model Law" as suggested by Printers' Ink of New York was carried with an amendment to include all the local associations of Wisconsin in the work.

A resolution regarding the making of manufacturers' lists uniform was referred to the executive committee.

#### THURSDAY AFTERNOON SESSION.

On Thursday afternoon the convention met in an executive session and at the close of this session the balloting commenced. On account of the lateness of the hour it

was decided that the five nominees receiving the highest number of votes be declared as members of the board of directors.

Arthur J. Maag, president of the Milwaukee Association, was elected delegate to the National Convention at Philadelphia next June.

William Owens, president of the Madison Association, extended an invitation to hold the next state convention at Madison. This was referred to the incoming board of directors.

The following were elected directors for the ensuing year: Geo. F. Reeke, Green Bay; Jacob Schuh, Milwaukee; Fred E. Green, Janesville; Louis Sonntag, Sheboygan, and S. V. Hanley, Milwaukee.

The officers elected were S. V. Hanley, president, Milwaukee; Geo. F. Reeke, vice-president, Green Bay; Louis Sonntag, secretary, Sheboygan; and F. E. Green, treasurer, Janesville.

In turning the gavel over to Mr. Hanley, Mr. Reeke spoke of him as "Six Cylinder" Hanley. While his chauffeur remained in the hall below, Mr. Hanley was escorted to the platform, where he made a neat little speech of acceptance, in which he lauded the work of President Reeke and stated that he knew what he was up against in trying to keep up the pace set by the president of the past three years. He said he would try to stand up to it, however and that he had only accepted under condition that Mr. Reeke be elected to the board of directors so that his advice might still be available.

Mr. Reeke's reply was in his characteristic vein. He stated that he had considered himself as salesmanager of a force of men; that the members were the salesmen and that by placing district salesmanagers over them he had been able to keep the work in the state lined up.

Mr. Hanley after receiving the gavel asked for the co-operation of the members and stated that he had worked with every president of the state association for nineteen years; that this was the finest state organization in the United States; and that the members were not followers but leaders. He stated that no state convention so far held in Wisconsin had equaled the attendance and interest manifested in this one; petty grievances should not be allowed to interfere with the work of the association and that misunderstandings should be adjusted promptly; you can catch more flies with molasses than with vinegar and the members should use diplomatic efforts to further the interests of the association.

#### Entertainment Features.

The entertainment of the convention in addition to the first open evening when members were looked after by a steering committee of the Milwaukee association, was the smoker given on Thursday evening at the Elks' Hall by the entertainment committee of the Milwaukee association consisting of Al. Voelz, F. Griebel, Emil Henoch, Dave Polacheck and F. Pfannenstiel.

This was exclusively for the members of the state association and at nine o'clock they sat down to a bountiful repast in which chicken pot pie was the "piece de resistance." After the dinner speeches were made by P. H. Murphy, F. Kuetemeyer and S. V. Hanley of Milwaukee, Geo. F. Reeke of Green Bay, W. H. Halsey and Jacob Schuh of Milwaukee. Mr. Reeke was presented with a beautiful silver set in recognition of his valuable services as president.

Following this was a program of entertainment in which a number of vaudeville acts from local theatres were staged, interspersed by selections by the "Big Four" male quartet of Milwaukee, composed of John Alberts, tenor;

Al Voelz, leader; P. J. Kaufman, baritone; and V. J. Schoenecker, bass. They were encored again and again and each time had something new up their sleeves.

The entertainment continued until the "wee sma' hours" and was voted an immense success by everyone present.

#### Personal Notes.

"Daddy" Goodman was present every minute of the convention and acted as reception committee at the door of the Elks' Hall. No one could get by Daddy's glad hand and when Fred Green deplored the fact that a couple



Wm. E. Goodman, Dean of Wisconsin Plumbers.

of trunks of his had not yet come over "Daddy" volunteered to carry them up himself.

Arthur J. Maag was called before the convention several times to explain his tardiness at the meetings. His explanation seemed to include some of the other members as contributing to his absence but Arthur was there with the goods all right.

#### List of Those Present.

Appleton: W. S. Patterson Co., Ryan & Long, Reinhard Wenzel. Baraboo: J. Arnott, O. Schadde. Beaver Dam: Bert Shepard, J. J. Neuman. Beloit: Spickerman & Bratley, Zimmermann & Osborn, Sanitary Plbg. Co., Paul A. Wolter.

Berlin: Jos. P. Lennon. Bloomer: J. O. Nordin. Brodhead: Brodhead Hardware Co. Burlington: A. H. Mueller. Chippewa Falls: P. L. McQuillen. Clinton: H. F. Dallman. Delavan: Ronk & Searles Co. De Pere: Ruby & Warren.

Eau Claire: Eau Claire Cornice & Heating Co., Wm. H. Heidmann, Grosvold-Bartingale Co. Elkhorn: Magill Bros. Evansville: F. A. Baker & Co. Fond du Lac: Sanitary Plumbing Co., D. Ahearn & Son, Ahearn-McCoy Co., H. J. Heyde. Grand Rapids: J. E. Far-

ley, Wm. F. Hess. Green Bay: Brehme & Delforge, E. Garot, C. Hansen & Co., Geo. F. Reeke, J. Thomas & Sons, N. Skogg & Co. Hudson: Gilbertson & Harlander.

Janesville: C. E. Cochrane, George & Clemens, F. E. Green, Charles Snyder. Jefferson: Puerner & Bienfang. Kaukauna: Geo. Kespert, Jr. Kenosha: Chas. H. Goodman, Kaelber & Kraft, E. J. Sullivan. Keil: J. M. Duecker.

LaCrosse: Baker & Niebuhr, F. M. Branson & Son, Ratz & Marquardt, Thill, Manning & Whalen Co., The Trane Co. Ladysmith: P. A. McQuillan. Madison: H. C. Horstmeyer, A. Metz, Schwoegler & Bliss. Manitowoc: J. M. Phelan, A. H. Drummer. Menasha: Menasha Plbg. & Htg. Co. Menomonie: A. F. Schoenoff. Monroe: Monroe Plbg. & Htg. Co., E. N. Churchill, Niles & Hartnett.

Neenah: F. L. Haertl. New London: W. A. Patterson & Co. Oconomowoc: Welch Bros., Edward A. Kersten & Co., Smith & Meadows, The H. Lorieberg Co.

Oshkosh: M. J. Kelly, P. J. Maus, Mueller Bros., Toner Plbg. & Htg. Co., Standenraus & Thayer, Fred J. Merten & Co. Platteville: C. H. Meyer. Plymouth: Fred L. Kurth, Rhode Bros. Port Washington: J. P. King.

Racine: O. H. Beecher, John Feiner, Albert Brunk, T. M. Gleason & Son, O. C. Davis, Fred C. Fair, Chas. Kark, W. R. Pugh, Schmollen & Schoenleben, West Side Plumbing Co., Wm. Leigler, A. W. Dickert, W. W. Rasmussen. Reedsburg: August Siefert Hardware Co.

Sheboygan: E. J. Aldag Co., Chas. Honold, Huebner & Co., Otto Junck, Koepsell Bros., Louis Sonntag & Sons, Sivers & Rademacher, A. Vowinkel Sons Co., Zuerheide & Wunderlich. Sparta: N. F. Palen. Stevens Point: J. B. Sullivan & Co. Stoughton: W. O. Havey, Alfred S. Thompson. South Milwaukee: Megow & Wallace, V. J. Robb, W. Whelan. Two Rivers: Fred Dawson.

Watertown: O. Biefeld & Co., Schlueter & Kieper, G. J. Russell, Doer & Loeshinger, A. H. Kusel. Waukesha: A. A. Andrews, J. J. Klock, Brewer & Jones, D. F. Akins. Wausau: H. J. Halder, Hett & Molter, E. L. Pine, Raduschel & Lietz, A. B. Wheeler & Son. Waupaca: A. E. Dahm, F. D. Burgess. West Allis: Blodgett, Smith & Co., Polacheck & Johnson. West Bend: A. G. Fuge Hardware Co.

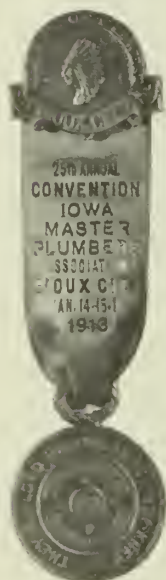
Milwaukee: J. H. Bechtel, Wm. Beck, J. Belz, W. C. Boettcher, E. Borkenhagen, Jos. Brah, Paul Buckethal, Roy Buddinger, Dearsley Bros., E. Diel, O. H. Dettmar, E. Downer, W. W. Dusold, Wm. H. Egan & Co., Wm. Esser, J. J. Fischer, C. J. Fox, L. R. Friend, J. Gill, F. A. Goll, W. E. Goodman, W. H. Halsey, S. V. Hanley, C. W. Harper, Wm. Huebner, P. Jensch, F. Julien, Jos. Junek, E. F. Kietzman, W. Kravanger, L. L. Kuczynski, E. A. Kuttig, Lindemann & Schumann, Chas. Lindner, H. A. Luedke, A. J. Maag, Anton Machesky, Jos. Machesky, Adolph Martin, Jos. Massino, A. J. Meloy, M. Mueller, Phil H. Murphy, Louis Neahr, Fred Neiman, R. P. Neugebauer, M. O'Leary, Frank P. Pfannenstiel, D. Polacheck, Rahn & Eggers, J. E. Robertson, Fred J. Scheurell, R. W. Schier, J. Schuh, F. M. Schwantes, L. Soergel, Stemper Bros., D. Stern, L. R. Stollberg & Co., Julian Szatkowski, H. W. Theis, Thill Bros., Trebs & Dereszynski, Thompson & Harriman, Van Roo, M., C. & A. Voelz, Herman Wegner, Wenzel & Henoeh, Wink & Schmitt, H. Weber.



# Iowa Plumbers' Convention at Sioux City

Three Day Session at Hotel Martin One of the Most Interesting and Instructive In Many Years

THE twenty-fifth annual convention of the Iowa Master Plumbers' Association was called to order at eleven o'clock Tuesday morning, January 14th, in the ballroom of the Martin Hotel, Sioux City, by President Robert Knauer of Des Moines. About seventy-five members and delegates were present at the open meeting. The room was attractively decorated with the national colors and palms.



M. J. Fischer, of Sioux City, introduced Mayor A. A. Smith, who made an interesting talk which was well received by the plumbers. He stated that it was time to stop "kidding" about the plumber and that he had found during the last few years that the members of the trade were doing a lot of good work in this city. He spoke of the city being handicapped in its geographical position but assured the plumbers that the citizens would make up for that in hospitality to the visitors. He stated that Sioux City had the fifth largest live stock market and that there was no better state than Iowa nor a better city than Sioux City.

President Knauer tendered his thanks to the mayor for the welcome extended and declared the meeting open. After the appointment of W. E. Lye as sergeant-at-arms he announced the following committees: Credentials: William Gow, Dubuque; J. F. Garvey, Mason City, and W. C. Beazor, Jefferson. Auditing: C. Hurley, Iowa City; T. E. Boller, Des Moines; J. H. Fenton, Cedar Rapids. Resolutions: J. M. Wilson, Washington; M. J. Corcoran, Des Moines; H. F. Hogan, Sioux City. Grievance: V. J. Hagan, Sioux City; G. Walker, Des Moines; R. A. Ellis, Waterloo. The roll call was then read by R. E.

Knauer, organizing secretary of Des Moines and was referred to the credentials committee.

## Extracts from Report of President Knauer.

This anniversary of our association should show us that it is built on sound principles, not for today or tomorrow, but for a lasting time; for the betterment and up-lift of its members. I, therefore, urge your loyalty to all measures passed by your association.

I think we can look with satisfaction to the past year, as we succeeded in enrolling forty-seven new members and added ten new localities to our list. We also had to lose some members on account of going out of business, non-payment of dues and other reasons, but we still have a net gain of twenty-two members.

Our by-laws provide that a certificate of membership be issued to all joining our association, and I had such printed and sent to every new member in the early part of the year, and believe that this practice should be followed by your next organizing secretary.

All of this work has been accomplished without special assessment. Only forty-two dollars remains in unpaid membership dues. Some added expense was incurred to weed out members who got behind, but the practice of checking off the names, if not paid during January and February, has helped to correct our list. I suggest that complaints of unjust treatment in any association matter be made known to the officers and that these matters be not discussed with traveling men or others outside.

The convention two years ago had up for consideration a state plumbing law similar to that of Ohio, Illinois and some other states. A committee was appointed to further the interests of the bill and it is now before the state legislature. I hope to see it become a law and urge all members to get in touch with the legislators from their vicinity looking to the support of the measure.

The Cedar Rapids Association, with the assistance of their plumbing inspector, secured the recognition of a



Edw. B. Denny, Pres. National Assn. Master Steam and Hot Water Fitters.



Robt. Clayton, Davenport; Tom Beggs, Sioux City; Ed. P. Sheeran, Dayton, O.; W. D. Hogan, Sioux City.



Wm. Ewinger, Burlington, and W. E. Lye, Sioux City.



J. B. Stewart, Kansas City; John King, Keokuk; W. B. Roberts, Milwaukee; W. E. Beason, Jefferson.



Robert Knauer, Des Moines, Retiring President.

city ordinance in their town, but Des Moines was not successful in this respect.

The report of President Knauer was adopted and ordered spread on the minutes, following which Secretary McCarten read his report, after which the meeting adjourned until two o'clock to allow the board of directors and committees time to consider matters before them.

#### MEETING TUESDAY AFTERNOON.

At three o'clock the meeting was called to order by President Knauer and the credentials committee reported two hundred and twenty-nine members in good standing. A number of additional names were added to the morning roll call. The auditing committee reported that the accounts had been found correct.

Among the resolutions offered was one by Mr. Wilson

#### WEDNESDAY MORNING SESSION.

At the Wednesday session the roll call was dispensed with. An invitation from the Burlington Association was received asking that the next convention be held there, which communication was turned over to the incoming board of directors for action at the proper time.

A motion that a message to Mr. Nesler of Dubuque, be sent expressing the sympathy of the association and hopes for his speedy recovery was carried. The convention then went into executive session.

#### WEDNESDAY AFTERNOON SESSION.

Edward B. Denny, president of the National Association of Master Steam and Hot Water Fitters, who was in the city on his way home from a visit to the Pacific coast, addressed the convention while in executive session. He spoke of the need of education of the members



Board of Directors and Officers, Iowa State Association, 1912-13, Sioux City, January 16, 1913.

R. A. Ellis, Waterloo; Frank Voelers, Keokuk; L. Smied, Cedar Rapids; H. B. McCarten, Dubuque; J. F. Gearen, Sioux City; Wm. Ewinger, Burlington; Robt. Knauer, Des Moines; Tom Daley, Mason City.

—that three members of the board of directors be elected for three years, three for two years and three for one year. Thereafter three each year, thus having on the board six holdover members each year. After lengthy discussion this resolution was adopted and the board of directors instructed to see that the change was made in the by-laws.

A resolution was adopted instructing the state secretary to send out bills for dues on January 1st and if these were not paid by April 1st the secretary was to make sight draft for collection. The object of this resolution was to avoid paying per capita tax for members who had not paid their dues, and whose names did not appear in the July Red Book.

Secretary McCarten read a letter from C. V. Kellogg, Chicago, regretting his inability to be present at the meeting. A number of other letters were read, one being from W. C. Haviland, secretary of the Illinois association, regretting that he could not be with the Iowa members. At 4:15 p. m. the convention went into executive session.

along business lines; sincerity and backbone in making up estimates; and urged the discontinuance of the practice of bidding for general contractors. He also gave a short historical sketch of the Master Steam and Hot Water Fitters' Association, of its methods of work and of its achievements in various lines for the benefit of the fraternity.

When the meeting was declared open at 3:45 p. m. a talk was given by Adolph Mueller, president of the H. Mueller Mfg. Co., Decatur, Ill., entitled "Opportunities." Our space is too limited to reproduce the talk here but it will appear in an early issue.

A rising vote of thanks was tendered Mr. Mueller and also President Knauer for inviting him and adjournment was taken to meet at nine o'clock Thursday morning, as the hall was to be prepared for the banquet in the evening.

#### THURSDAY MORNING SESSION.

The meeting opened at 9:45 and the roll call was dispensed with, after which the members went into executive session.



**THURSDAY AFTERNOON SESSION.**

There being no other business before the meeting in the afternoon the selection of the nine members of the board of directors was undertaken, three being elected on each ballot, thus, three for a three year term, three for the two year term and three for the one year term. The result of the election for the three year members was John Thomas, Des Moines; W. D. Hogan, Sioux City; John R. King, Keokuk. Those elected for the two year term were John Gustin, Fort Dodge; J. H. Fenton, Cedar Rapids; and J. M. Wilson, Washington. Those elected for the one year term were R. A. Ellis, Waterloo; William E. Ewinger, Burlington; H. B. McCarten, Dubuque.

Invitations from the Burlington Association and from the Commercial Club of that city were read, after which John King, representing Keokuk, urged that city as the next meeting place, and after some discussion Keokuk was selected.

James Wallace of Des Moines lauded the service of the retiring board of directors and spoke especially of the faithful work of Robert Clayton, Davenport, he being the oldest member of the association and having always

**Banquet on Wednesday Evening.**

Opening at eight o'clock Wednesday evening, the banquet was held in the ball room of the Martin Hotel. The tables were decorated with smilax, roses and carnations, giving a beautiful effect. John F. Gcaren acted as toastmaster. The music was furnished by John Sassano, who varied the program from ragtime to grand opera with pleasing effect. The dinner, with courses to suit the taste of everyone, followed.

Toastmaster Gcaren read a telegram from D. W. Fitts, of Oklahoma City, expressing regret at not being able to be present. The first number was a selection, "My Pony Boy," by a quartet composed of Roy Tyler, Ed. Murphy, Charles Anderson and Carl Norbloom. Mayor Smith of Sioux City made a few remarks urging stricter plumbing laws in cities and stating that in two years there had been only one complaint on the Sioux City ordinances. He advocated municipal ownership of waterworks. Adolph Mueller, president of the H. Mueller Mfg. Co., Decatur, Ill., spoke in a humorous vein, told some stories and urged the necessity of co-operation and



Group of Master Plumbers in Front of

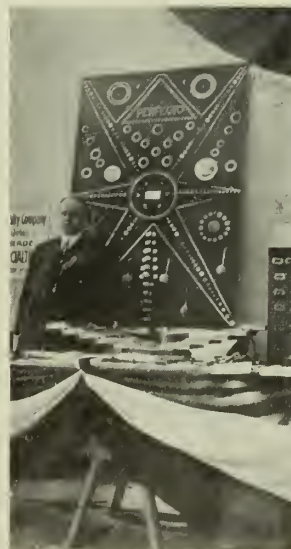
attended both state and national conventions. A vote of thanks was given Mr. Clayton for his untiring services. A vote of thanks was also given Robert Knauer, retiring president, for his faithful work.

J. B. Cunningham, of Omaha, in a few remarks congratulated the Iowa members on the spirit of their organization and the good fellowship that has developed in their twenty-five years of association work. He extended an invitation to the Iowa members to attend the Nebraska state and local meetings.

In a few remarks by Edward B. Denny, he stated that it was not alone those who were ignorant who were to blame for low prices, but that many master plumbers and fitters deceive themselves and make a low bid in the hope that they will come out by extras or by chance. Conscientious work in making estimates was urged.

**Officers Elected.**

The election of officers resulted as follows: President, H. B. McCarten, Dubuque; vice-president, William Ewinger, Burlington; state secretary, R. A. Ellis, Waterloo; treasurer, W. D. Hogan, Sioux City; and organizing secretary, R. E. Knauer, Des Moines.



J. B. Stewart, Vice-President Western Specialty Co., at Their Display.



Tom Beggs, of Sioux City, and His Display of Hand Made Lead Traps and Bends.

the getting together of master plumbers in their business methods.

John Dwyer, of St. Paul, spoke on how to figure a greater profit. He admitted that he was a reformed plumber and said that the way to figure a greater profit was to really figure it. One remedy he said was education; that many in the plumbing business have not had the opportunity to learn to be merchants, but all should aspire to this end. After figuring a profit on a contract, stand by it, he said, and when a friend states that he has a bid a little lower, but wants you to have the job, let him show his preference in dollars and cents rather than cheap language.

O. J. Moore, wholesale grocer of Sioux City, spoke of history repeating itself and stated that our responsibilities in these days of advantages are great. He brought out the fact that it is an art to be a merchant and that it takes a long time to learn it. He believes in getting together, but not for price making, education being a greater factor. A man who figures below cost and overhead expense is fooling himself, for labor is worthy of its hire and all should have due reward.

traps made by himself, showing what was required of a plumber in the early days of the trade.

William H. Godbey was in charge of the display of the Central Closet Mfg. Co., Kokomo, Ind.

Van Auken heating specialties were shown by the Dwyer-Field Co., in charge of P. A. Dwyer.

The Peerless Selling Company, Evansville, Ind., showed a line of high grade combinations.

The Blake Specialty Company, Rock Island, Ill., had on display a line of their special vents and drainage fittings, cleanouts and testing plugs, in charge of John D. Blake.

A complete line of Rapidac and self-closing work connected with the city pressure, as well as the Mueller Pressure Regulator in operation, was shown by the H. Mueller Mfg. Co. Ed. Stebbins and Horace F. Clark assisted Adolph Mueller in the display.

The George J. Roberts Co., Dayton, Ohio, showed their line of electric water lifts, as well as the regular lifts and were represented by Edward P. Sheeran.

Preston Daniels, manufacturers' representative, of



Hotel Martin, Sioux City, Jan. 15, 1913.

J. B. Coningham, of Omaha, secretary of the Nebraska and the Omaha associations, spoke on association work, giving an idea of how the Nebraska association had grown in the past two years. He also mentioned the plumbing law that is to be brought before the present legislature. He favored a law that would require a suburb of a city to install work that would not endanger the health of the people in the city proper. The plumber has a great work in serving the rest, he said, and also stated that he felt that Nebraska needs closer co-operation with adjoining states.

#### Manufacturers' Exhibits.

The exhibits in a store room near the Martin Hotel were arranged for by the Sioux City Local Association and were open to the general public, as well as to the members.

The Western Specialty Company, Kansas City, Mo., was represented by J. B. Stewart with a complete line of plumbers' specialties, and bathroom accessories. Mr. Stewart handed out tickets for a chance on a plumbers' repair kit and also gave souvenirs of a neat steel rule.

Tom Beggs, Sioux City, displayed a number of lead

Marshalltown, Ia., had a complete display of Dunham traps and valves as well as other specialties.

The Vaile-Kimes Co., Dayton, Ohio, showed their well-known V. & K. Electric Pump and Water Motor Pump in operation. This display was in charge of H. A. Stamper and R. L. Lansel.

Other manufacturers' representatives present were as follows: W. B. Roberts, representing the H. W. Johns-Manville Co., Milwaukee; Ben G. Branson, representing The Monarch Brass Co., Cleveland; Fred Hamel, of Des Moines, representing Harte & Crouse Co., Chicago; John Sullivan, of Omaha, representing N. O. Nelson Mfg. Co., St. Louis, and S. Reske, representing Farnam Brass Works, Cleveland.

Much merriment was occasioned at the banquet when Mayor Smith, in the course of a story, remarked: "Of course you know the commandments." After noting the look of blank astonishment, he continued, "It's the seventh commandment to which I refer." Later in the evening Tom Beggs spoke up, "What's the seventh commandment?" and when he was told by Mr. Moore, "Thou shalt not steal," it brought down the house.





J. B. Stewart, Western Spec. Co. Some of the Salesmen Present  
John Soderburg (Cop) and at the Iowa Meeting.  
W. E. Beazor, Jefferson, Ia. A Jolly Bunch.

Adolph Mueller and Horace F. Clark, of H. Mueller Mfg. Co.

Preston Daniels, Marshalltown, Ia.; W. D. Roberts, Milwaukee and P. A. Dwyer, St. Paul.

Manufacturers, Salesmen and Friends at Iowa State Convention, Sioux City.

### CLEVELAND MASTER PLUMBERS' ASSOCIATION ELECTS OFFICERS.

The Master Plumbers' Association of Cleveland, Ohio, held its annual meeting last week and elected the following officers: President, George J. Wehrle; vice-president, Karl J. Knuth; secretary, Eb Ellen; treasurer, Henry Gerspacher; sergt.-at-arms, Frank C. Grim. Board of Directors: Chairman, Karl J. Knuth; A. W. Southwell, E. E. Hill, Thos. P. McDermott, A. L. Bacher, W. H. Cleveland, A. W. Stark, H. W. Eckhardt, W. E. Boyer, F. E. Manney, Wm. Koestle and John B. Meyer. The following gentlemen were elected as delegates and alternates to the Ohio State Convention, which is to be held in Toledo, Ohio, on February 18, 19 and 20: Delegates: President, Geo. J. Wehrle, E. E. Hill, H. W. Eckhardt, Thos. P. McDermott, A. W. Southwell, A. L. Bacher, and

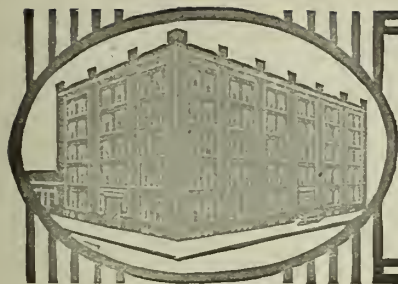
F. E. Manney. John F. Drees, president, state association; D. H. Roberts, ex-president, state association, and Eb Ellen, secretary and treasurer of the state association. Alternates: Peter Dunn, Wm. Koestle, John Leese, Henry Gerspacher, Frank C. Grimm and Karl J. Knuth.

### UTICA MASTER PLUMBERS ELECT OFFICERS.

At the regular meeting of the Master Plumbers' Association of Utica, N. Y., held on Friday evening, January 3, the following officers and trustees were elected for the ensuing year: George Brucker, president; Thomas Breen, vice-president; Charles Breen, secretary. Ed. G. Harvey, treasurer; Wm. Cantwell, sentinel. The following members will constitute the board of trustees: Ben Wittig, Edw. H. Bice and John Rossiter.



Manufacturers' Exhibit, Held During The Iowa State Convention, Sioux City, January 14, 15, 16, 1913.



## News of Interest Among the Wholesalers and Manufacturers



### J. M. KOHLER SONS CO. INCREASES CAPITAL STOCK.

The J. M. Kohler Sons Co., of Sheboygan, Wis., manufacturer of porcelain enameled iron fixtures, has increased its capital stock from \$75,000 to \$1,000,000. The company is building several additions to its large plant, which will greatly increase its capacity.

### BOWLUS MFG. CO. INCORPORATES.

The H. C. Bowlus Mfg. Co., of Springfield, Ohio, manufacturer of the "Royal" Direct Water Closet Flushers, has incorporated its business with a capital stock of \$25,000. The incorporators are Harry C. Bowlus, C. Schindler, Frank H. Kredel, J. Russell Smith and W. W. Witmeyer.

### CHICAGO OFFICE OF KEWANEE BOILER CO. MOVES.

The Chicago offices and showroom of the Kewanee Boiler Co. are now located at the corner of Washington and Market streets, where increased floor space has been secured and a much better display made possible. The change will be welcomed by heating men.

### MCCREERY ENGINEERING CO. MOVES OFFICES.

The McCreery Engineering Co., of Detroit, Mich., has moved its general offices from 80 Griswold Street to its new factory at McDougal and Woodbridge streets. The manufacturing plant was recently moved to the present location from Toledo, and the offices and factory are now at the same address.

### WILL ESTABLISH GENERAL SALES OFFICES IN NEW YORK CITY.

The Treadwell Engineering Co., whose large plant is now located at Easton, Pa., will on February 1st establish its general sales office at 140 Cedar Street, New York City. E. R. Euston is sales manager and, under his earnest guidance a nation-wide business has been established on the Stoeber pipe-threading machine.

### WILL MANUFACTURE HEATING SPECIALTIES.

The Standard School Heater Co., of Chicago, has been incorporated with a capital of \$10,000 to manufacture heating and ventilating specialties. The incorporators are: Schuyler C. Wilson, James K. Shearer, James E. Sellers, E. Jesse Bowman and C. A. Nixon.

The Benton-Atlas Valve Co., of Newark, N. J., has been incorporated with a capital of \$15,000 to manufacture heating specialties. The incorporators are: D. L. Dalrymple, George H. Benton and William A. Coles.

### PEERLESS HEATER CO. OPENS OFFICES.

The Peerless Heater Co., 7 Wood Street, Pittsburg, Pa., has just opened an eastern office in Longacre building, 42nd Street and Broadway, New York City. The office is in charge of Henry Lipkemann, who will look after the company's business in the East, with the exception of the New England states, which will be taken care of by M. B. Spooner, with office at 25 Harrison Avenue, Springfield, Mass.

### THE SANITARY CO. HOLDS SALESMEN'S CONVENTION.

The Sanitary Co., of Cleveland, Ohio, manufacturers of plumbers' brass goods, held a ten days' convention with the company's salesmen, beginning the second week in January. A private dining room at the Hollenden hotel was secured for the period.

During and after the dinner each day, matters of importance to the trade were discussed. The spare time was taken up in visiting points of interest in and about the city.

On the evening of the 10th the salesmen tendered the



The Annual Convention of the Sanitary Co.'s Salesmen. Top Row Reading from Left to Right: Paul Heiland, H. C. Brazelton, James Leonard, Lew Phillips, P. S. Brown, W. L. Magaw, John Heinkel, Jim Weldon. Bottom Row Reading from Left to Right: E. R. Lowry, A. D. Dennison, H. J. Geurink, R. C. Koblit, M. S. Hauser.

ladies of the office force a dinner at the Rathskeller, which was a very enjoyable affair.

As a result of the conference, the salesmen enter upon their work for 1913 full of enthusiasm and with the knowledge that they have the hearty co-operation of the factory and office force.

### CONFERENCE IDEA HELD SUCCESSFUL BY CENTRAL BRASS MANUFACTURING CO.

The ideas of holding conferences of the sales and executive forces of a manufacturing or jobbing business once a year seems to be meeting with great success among those who have tried it. The Central Brass Manufacturing Co., Cleveland, Ohio, held such a conference at its offices from December 16th to 20th, in-



clusive, and report this as having been one of the most successful meetings it has ever had.

The policies of the firm and progressive ideas were interchanged, and both the members of the company and the salesmen on the road were benefited.

The first day of the conference was spent in discussing the policies and principles of the company. Another day was given to advertising, sales helps and co-operation with the trade. These two days devoted to strengthening the highest ideals of business integrity were believed to be of the greatest advantage to all present at the conference.

Three other days were spent in an analysis of the goods made by the company. Several interesting papers were contributed to the discussion, among which was one by J. N. Mortimer on "How the Factory Lives Up to the Policy of the Central Brass Mfg. Co." Another by Robert Moses, the cashier, was on "How the Credit Department Lives Up to the Policy of the Central Brass Mfg. Co."

The notable use of the personal style of advertising by this company, featuring its famous little Mister Bibcock, has indeed made "Quickpression Work" famous. He remains the only original little plumber without a face.

The conference closed with a banquet at the Excelsior Club, one of the prominent social organizations of the city. A remarkable speech on "Co-operation" was given by Albert J. Leitch, a well-known business expert.

Harry Dwight Smith, of the advertising firm of Fuller & Smith, spoke on "Organization as Applied to the Individual." S. Z. Brown, sales manager of the company, gave an interesting talk on "Making the Sale;" President M. W. Heller told of "What We Expect to Accomplish the Coming Year," and Vice-president E. L. Strauss, who was toastmaster, closed with a talk to the men on "The History and Aims of the Central Brass Mfg. Co." Thus was closed what by far was the most interesting and instructive of the nine conferences held by the Central Brass Mfg. Co.

#### INTERNATIONAL HEATER CO'S. CONVENTIONS OF SALESMEN.

The annual conventions of the salesmen of the International Heater Co., Utica, N. Y., were held during the first two weeks in January, the western men convening first. They spent two days at the plant and concluded with a banquet at Hotel Utica on the 8th, at which Frank E. Wheeler, president of the company, presided, and D. E. McCabe, manager of the Chicago branch, acted as toastmaster. Inspirational talks were also given by the salesmen and members of the office force. The visitors were: D. E. McCabe, L. R. Taylor, Geo. J. Myers, Geo. B. Carr, Thos. J. Casserly, all of Chicago; F. D. Sumner, of Danville, Ill.; F. P. Edson, of Topeka, Kan.; R. H. McCoy, of Monmouth, Ill.; C. F. Malone, of Davenport, Ia.; J. M. Beech and L. J. Brien, both of Milwaukee.

On January 14th the eastern salesmen, to the number of 20, gathered at the plant to spend a couple of days. On the evening of that day they, together with the office force, were the guests of the company at an informal dinner at Hotel Utica. President Wheeler presided, and the toastmaster was J. K. Simpkins, eastern sales manager. The evening was enlivened by salesmen's yarns, in which the dean of the office force, George A. Tyler, easily carried off highest honors.

A talk of deep interest on "Selling Expense" was given by the treasurer, I. L. Jones; "Credits" was handled by S. A. Batty. Other talks were: "How the Salesmen Can

Help the Order Department," by Robert Griffith; "The Inspection of Heaters," by Walter Jones, superintendent of the foundry; "Relation of the Jobber to the Dealer," by Manager Clist of the New York branch; "Furnaces," by Manager Stephen, of the Boston branch; "Loyalty," by Mr. Simmons, the dean of the sales force.

The eastern men present were: From the Boston branch: E. C. Stephen, manager; C. A. Voter, W. R. Farland and J. F. Green. From the New York branch: R. J. Clist, manager; C. W. King, Geo. R. Lewis, Fred J. Kedcnburg, R. H. Park and Milton Devore. Others present were: H. A. Simmons, of Detroit; W. R. Smith, of Cleveland; A. E. Rose, of Fort Wayne, Ind.; A. E. Hirschfelder and H. J. Smith, of Rochester, N. Y.; L. N. Thomas, of Glens Falls; F. A. Healy, of Watertown, N. Y.; W. G. Barrows, of Syracuse, and E. H. Remig, of Passaic, N. J.

These annual conventions are held with a view to familiarizing every man connected with the sales organization with the facilities of the company for turning out its products. The men are shown not only the process of manufacturing and the care taken in fitting the company's heaters, but also the methods of erecting, including explanation of the mistakes that customers make. Outlines of plans for the coming season are given, and every man is expected to give a good account of his stewardship "at the sign of good heating."

#### MEETING OF NEW YORK CHAPTER OF HEATING AND VENTILATING ENGINEERS.

The monthly meeting of the New York Chapter of the American Society of Heating and Ventilating Engineers was held in the Engineering Societies building, 29 West 39th Street, New York, N. Y., on Tuesday evening, January 14, 1913.

Secretary Joseph Graham announced that J. A. Almirall and C. W. Haensel were elected to full membership in the Chapter.

President Frank G. McCann announced the death of N. P. Andrus, a charter member of both the Chapter and the Society, on December 13, and it was voted that the Chapter draw up a resolution and send it to the family of Mr. Andrus. F. K. Davis represented the Chapter at the funeral.

The report of the Committee on Ventilation of Motion Picture Show Places was made by Frank T. Chapman, and it was voted that this report be accepted as one of progress and the committee continued.

The report of the committee to assist the officers of the Society in connection with the entertainment features of the annual meeting was read by Homer Addams, and this also was accepted as a report of progress. This report was followed by a description of the technical features of the coming meeting by W. W. Macon, secretary of the Society.

A report was made by Frank K. Chew on the trip of the members of the New York and Massachusetts Chapters to Springfield and Westfield, Mass., and New Haven, Conn., with the Committee on Tests of the Society, which was supplemented by J. I. Lyle.

Those present were: Homer Addams, Hugh J. Barron, Thomas Barwick, Frank T. Chapman, Chas. F. Chase, Frank K. Chew, F. K. Davis, G. D. Farnham, Joseph Graham, P. A. Hoffman, R. B. Hunt, Conway Kiewitz, F. J. Lennox, C. C. Lincoln, J. I. Lyle, F. G. McCann, W. M. Mackay, W. W. Macon, George O'Hanlon, W. S. Ransom, Arthur Ritter, C. E. Scott, E. A. Scott, G. G. Schmidt, E. J. Treat, W. C. W. Turno and C. E. Warsop.

### ADDITIONAL CALENDARS RECEIVED.

J. H. Williams & Co., Brooklyn, N. Y., manufacturers of pipe fitters' tools and wrenches, have recently issued a novel calendar for four years. It has many unique features and should prove of great value. The illustration shows a structural iron worker on top of the fifty-seventh story of the new Woolworth building, New York City, standing on one Williams' wrench with another in his hand. The picture is of considerable interest in itself.

The N. O. Nelson Mfg. Co., St. Louis, Mo., is again at the front with its 1913 calendar with a sheet for each month. This is one of the most practical calendars that has reached the trade, on account of the plain figures and generally tasteful design.

The William H. Page Boiler Co., New York, got out an attractive wall calendar in three colors, showing its plant at Meadville, Pa. In one corner a view of its "Volunteer" Boiler and in the other an attractive picture of its "Monarch" is shown. The whole effect is pleasing, and the calendar is large enough to be a very effective advertisement.

The American Steam Pump Co. of Battle Creek, Michigan, distributed to their customers and friends a calendar that bears the earmarks of a quality seldom seen in this class of work. It is produced from a steel plate and shows three of their popular pumps as well as a birdseye view of their factory.

### ATTRACTIVE SPECIALTIES MADE BY THE ABINGDON SANITARY MFG. CO.

The Abingdon Sanitary Mfg. Co., Abingdon, Ill., is making some attractive Vitreous China specialties. One of these is a forty-five degree spud syphon jet closet, with a twin jet pipe that empties into a sediment pocket. From the sediment pocket to the jet hole in the bowl there is no permanent connection. It claims that this bowl will not lime and stop up, which has sometimes



A Forty-five Degree Spud Syphon Jet Closet.

been the case with syphon jets. Should it stop, acid can be put through the jet hole to pulverize the lime or sediment without removing the closet. The spud of this closet allows an adjustment of three inches at the waste opening in the floor. By raising or lowering the tank the adjustment at the bend of the floor is obtained.

Full information will be furnished by the manufacturers or their distributing houses upon mention of "Domestic Engineering."

### THE DETROIT MULTI-PORT VALVE.

Vapor, vacuum and atmospheric heating systems require the use of valve that allows the greatest ease of adjustment. To the fitter, the fact that such a valve can be had to fit any radiator, without carrying a variety of different sizes in stock, should be a decided inducement to use the Detroit Multi-Port Graduated Vapor Valve, manufactured by the Detroit Lubricator Co., Detroit, Mich.

This valve can be accurately and delicately adjusted after installation to pass exactly the right amount of



Detroit Multi-Port Graduated Vapor Valve.

vapor to meet the requirements of any radiator. It removes the necessity of carefully estimating in advance the size of the port opening required for each radiator on a job, and of selecting a suitable size for each radiator, testing it, and disconnecting for the purpose of reaming out the port, inserting parts or substituting a new valve until approximately the right port area is obtained.

With the Detroit Multi-Port valve it is claimed that all that is necessary is to take any valve out of stock (they are all  $\frac{3}{4}$  inch, exactly alike), install it, and after the system is in operation remove a set screw, adjust the port area correctly and replace the set screw.

Inside the valve body is a shell with a square opening of the same size as the supply to the radiator. This shell is operated by the lever handle. When the right opening is obtained, the set screw is replaced. It is claimed that this valve will not leak, as it has no packing.

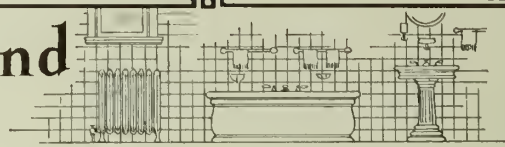
Circulars describing it fully will be sent by the manufacturers, the Detroit Lubricator Co., Detroit, Mich., upon mention of "Domestic Engineering."

### NEWS FROM RHODE ISLAND.

Providence.—Plans calling for plumbing work to the value of \$589,310, an increase of practically \$40,000 over the highest previous mark in the history of the city of Providence, were filed with Inspector of Plumbing Reuben S. Bemis, during 1912. Plans calling for plumbing in 602 new buildings were filed, the largest number in the history of the city in any one year. By the use of an automobile, voted to it by the city council, Inspector Bemis' department was also able to break all records in the number of inspections made. The total for 1912 was 9,204, as against 8,102, the best previous mark. These inspections had to do with 2,740 different jobs, of which 322, or less than 12 per cent, were found defective. Forty-two firms have had their licenses held up because of work unsatisfactory to the inspector.



# Among the Plumbing and Heating Contractors



## Illinois

### THE NEW SECRETARY OF CHICAGO MASTER PLUMBERS' ASSOCIATION.

The accompanying picture is a good likeness of Charles F. Taffe, who was this month elected to the office of secretary of the Chicago Master Plumbers' Association, as told in last week's issue of "Domestic Engineering." Mr.



Charles F. Taffe, Chicago.

Taffe conducts a successful plumbing business at 21 East Thirty-first Street, Chicago, and he has a large host of friends in the plumbing trade.

Chicago.—According to a recent communication received by the Chicago Bureau of Sanitation from William C. Groeniger, State Inspector of Plumbing in Ohio, the state board of health of Ohio has just adopted a recommendation which provides for the appointment of plumbing inspectors in thirty cities that have a population of more than 8,000. This, it is said, will have a tendency to relieve the unsanitary condition in Ohio. The State Inspector of Plumbing expects that the legislature will also provide the state board of health with deputies. He also thinks that the lawmakers of Ohio will enact, during the present session, a universal, minimum standard state plumbing law for all classes of buildings in all cities of Ohio.

The Board of Directors of the American Society of In-

spectors of Plumbing and Sanitary Engineers of America will hold a meeting on the 1st of February in the rooms of the Bureau of Sanitation, City Hall, Chicago. Thomas Claffy, president of the society, will preside.

Thirty delegates from the Master Plumbers' Association of Chicago will leave for Springfield in a special car Monday morning to attend the state convention of master plumbers. It has not been definitely decided whether they will go by way of the Illinois Central or the Chicago & Alton railroads.

Herman D. Schmidt, a master plumber of Philadelphia, was a visitor in Chicago recently. He was here to call on the supply houses.

E. Baggot & Co., Lake Street, are installing plumbing in the following buildings in this city: The Franklin building, Dearborn Street, near Polk; the American Book building, 22nd Street and Calumet Avenue, and the Advertisers' building, on Madison Street, between La Salle and Clark streets.

City inspectors of plumbing are among the salaried employes of the municipality who refuse to accept their salaries this month because the city administration has deducted twenty per cent from their pay, in accordance with its general policy of economy. C. B. Ball, chief of the sanitary bureau, and E. R. Pritchard, secretary of the health department, are two of the men who prefer to lend the city their whole salary rather than accept eighty per cent of it at this time.

## Obituary



### Albert F. Trageser.

Albert F. Trageser, president of the John Trageser Steam Copper Works, 447-457 West 26th Street, New York City, died at his home in that city on Sunday, January 12th, according to announcement just issued by the company. Mr. Trageser had many friends in the plumbing and heating trade who will regret to receive the intelligence of his demise.

### John B. Reid.

John Bothwell Reid, of Wilkesburg, Pa., died at the St. Francis hospital in that city on January 13th, in his fifty-seventh year. He formerly held responsible positions with the Standard Sanitary Mfg. Co. and the Duquesne Sanitary Co., of Pittsburg, Pa., retiring about a year ago. Two daughters survive him.

### Newell Parker Andrus.

Newell Parker Andrus, for many years an inspector in the department of heating and ventilating for the board of education in Brooklyn, N. Y., died at his home in that

city on January 13th after a brief illness. Mr. Andrus leaves a widow, one son and a daughter.

#### S. E. Horn.

S. E. Horn, of Hugo, Okla., a well-known plumber in that part of the country, died at his home in that town on January 14th. He is survived by his wife and five children.

#### ANNUAL RECEPTION AND BALL OF THE MASTER PLUMBERS OF BROOKLYN, N. Y.

The Master Plumbers' Association of Brooklyn, N. Y., held its annual entertainment and ball at Prospect Hall, Brooklyn, Tuesday evening, January 14th.

The entertainment features consisted of a vaudeville show and motion pictures. During the entertainment an expensive solid silver service set was presented to retiring President John W. Sands in a speech by M. F. Gleason. At the conclusion of the entertainment the hall was prepared for dancing, which was participated in until a late hour.

Among those present were National President Frank J. Fee; state president, Frank B. Lazette; national secretary, Jerre Murphy; Bart Donohue; borough president, A. D. Steers; superintendent of buildings, P. J. Carlin; superintendent of sewers, Mr. Taylor; commissioner of public works, Lewis L. Pounds; superintendent of public buildings, H. L. Woody; superintendent of highways, Mr. Trumbridge; Dennis J. Donovan, president of Brooklyn Association; M. J. Kennedy, vice-president of Brooklyn Association; Louis P. Groferer, treasurer of Brooklyn Association; James T. Keenan, secretary Brooklyn Association; Louis Frisse, J. P. Byrne, M. J. Hayden, William Eierman, Thomas E. O'Brien, Edward Macdonald, M. F. Gleason, J. W. Sands, John J. Dixon S. J. Corcoran, Lewis A. Deiser, Jr., M. J. McGrath, F. J. Bryan, W. A. Crane, R. E. Derigman, E. J. Belford, J. Louis Bosch, James Jarcho, Patrick H. Gleason, Charles F. Mentzinger, George F. Tracy, J. F. Corcoran, James Johnston, Robert L. Crawford, Arthur J. O'Keefe, Frank Hogan, Jerome Jang, John F. Abernethy, Edgar C. Byron, Thomas H. Radcliffe, Charles Schivenker, John W. Hughes, David Nechamkus, Paul Finkensieper, H. H. Hoffman, Harry M. Noble, Martin F. Mulligan, Morris Donin, William Till, J. L. Meeks, R. L. McChesney, Thomas F. McEnaney, Robert A. Austin, Joseph P. Killian, Frank L. Steele, Harry Voletsky, William A. Nugent, Eugene A. Lambert, William S. Herne, James Johnstone, John Gannon, Louis Kafetz and Adolph Sleiger.

The affair was the largest and most successful in the history of the association, both socially and financially, fully 2,000 persons being present.

#### PASSAIC MASTER PLUMBERS' ANNUAL MEETING.

The Master Plumbers' Association of Passaic, N. J., held its annual election of officers on January 9th, 1913, at the association rooms in the Hobart Trust building. The following were elected for the ensuing year: President, John Karl; vice-president, John Groendyke; recording secretary, John Collins; financial secretary, Benjamin Jacobs; treasurer, Fred Geiger; sergeant-at-arms, Hynian Levine; trustees, George S. Aldous, Paul Wright and Peter Boon. A large representation was present, and at the close of the meeting all enjoyed a season of social intercourse around a bountifully spread table.

The Baltimore Association of Master Plumbers will hold its annual ball on Monday evening, January 27th, at Lehmann's Hall, on North Howard Street, in that city.



West Zollarsville.—A. K. Davis has opened a plumbing and general repair business here.

Washington, Ia.—A new plumbing establishment has just been opened in this town under the name of the Arthur Plumbing Co. The proprietor, Mr. Arthur, was formerly with the Wilson Heating Co.

Paterson, N. J.—The Paterson Sanitary Plumbing Co. has been incorporated with a capital of \$10,000 to conduct a general plumbing business. The incorporators are: David Stein, Samuel Greenblatt and Max Golding.

Peoria, Ill.—Kasjens-Entwistle, Inc., is the style of a new concern incorporated for \$6,000 to conduct a general plumbing and heating business. The officers of the company are: Theodore Kasjens, W. H. Entwistle and Jacob G. Kasjens.

New York City.—Schwartz & Schwartz, Inc., is the style of a firm recently incorporated for the purpose of conducting a general plumbing business. Capital, \$25,000. The incorporators are: K. Schwartz, S. Schwartz and B. McDermott, all of New York City.

Hoboken, N. J.—Manahan Brothers' Heating Co. has been incorporated with a capital stock of \$50,000, to conduct a general heating business. The incorporators are: F. L. Manahan, E. N. Denend, A. W. Bowditch and M. M. Manahan.

Niagara Falls, N. Y.—The Niagara Falls Furnace Co. has been incorporated with a capital of \$50,000 to deal in furnaces and their appliances. The incorporators are: Ambrose V. Davidson, Kittanning, Pa.; William E. Taylor, Aspinwall, Pa.; Edward T. Williams, Niagara Falls.

Orlando, Fla.—The Joseph Reahn Plumbing & Heating Co. is the style of a new concern incorporated for \$10,000 to conduct a plumbing and heating business. The officers of the company are: J. Joseph Reahn, president; J. Burkhard, vice-president; S. B. Perkins, secretary and treasurer.

Amesbury, Mass.—M. E. Deal has opened an up-to-date plumbing establishment in the building formerly occupied by the Two In One shoe store. The building has been repaired and neatly finished inside. Mr. Deal is fitting up the show windows with a nicely arranged display of plumbing and heating fixtures.

Russellville, Ark.—The Russellville Plumbing, Electrical & Tinning Co. has been incorporated for \$10,000. The new concern has taken over the stock and machinery of Vance & Daugherty and will carry on the business at the same stand. The officers of the company are: W. J. White, president; J. M. Ball, vice-president; John W. White, treasurer; A. D. Shinn, manager; Lewis T. Ragdale, secretary.

New York City.—The Raisler Heating Co. has purchased the property at 129 and 131 Amsterdam Avenue and will erect a four-story concrete building for its own use.



## BUSINESS CHANGES.

Syracuse, N. Y.—Thos. J. Meehan, formerly of the plumbing firm of Meehan & Kehoe, has severed his connection with that company and engaged in business at 387 West Fayette Street, where he has fitted up neat quarters. Mr. Meehan would be glad to receive catalogues and discount sheets from manufacturers and jobbers of plumbing and heating goods.

Thomas, Okla.—The Joy Plumbing Co. has purchased the plumbing stock of J. B. Harsha and will continue the business at the present location.

Columbia, Tenn.—J. B. Rees has acquired an interest in the business of M. M. Bradley. The firm will be known as Rees & Bradley and will do a general plumbing business.

Pekin, Ill.—H. S. Mathews has moved his office and plumbing establishment to 348 Margaret Street. He has put a new white brick front in the building, giving his new place of business an attractive appearance.

Hartford, Conn.—Edward Mahl, 270 Trumbull Street, has purchased the stock, fixtures and good will of the George Mahl & Son plumbing establishment and will continue the business at the same location.

Dunmore, Pa.—Thomas Regan has taken over the business interests of T. J. Hughes, Calvin and Chestnut streets, Mr. Hughes retiring. Mr. Regan learned the plumbing trade with Mr. Hughes and has been in his employ ever since.

Springfield, O.—The Crain Stuart Co., 28 S. Limestone Street, has purchased the plumbing business of the R. H. Desormoux Co., on South Fountain Avenue. The business will be continued under the name of the Crain Stuart Co.



Pittsburg, Pa.—The Geisler Co., of this city, has secured the contract for heating and ventilating the new Baptist church at Canton, O. Consideration about \$4,300.

Waterbury, Conn.—F. W. Engert & Son have been awarded the contract for the plumbing and heating in the three-family house to be erected on Cooke Street for T. J. Brennan.

Hazleton, Pa.—The Hazleton Machinery & Supply Co. has secured the contract to install plumbing in the new Gerhardt shirt factory.

Litchfield, Ill.—H. Tinkelpaugh has been awarded the contract for plumbing, and Press Odem for installing a heating plant in the Holden property on North State Street, which is being remodeled for hospital purposes.

Richmond, Ky.—The Richmond Plumbing & Heating Co. has several large contracts on hand, among them being the following: Heating, lighting and plumbing installations for the girls' new dormitory at the Eastern Kentucky state normal school, amounting to about \$6,000; heating systems for two high schools in Richmond; plumbing, heating and electrical equipment for the Fields Hotel at Hazard, Ky.; plumbing, heating and mechanical equipment for the residence of the president of the Eastern Kentucky state normal school.

Philadelphia, Pa.—The West End Heating & Engineering Co. has secured the contract for repairs and alterations

to the steam and exhaust pipes in the city hall, amounting to \$3,200.

Philadelphia, Pa.—The Philadelphia Steam Heating Co. has been awarded the contract to install heating apparatus at 5729 Spruce Street for E. C. Shearer. Cost, \$2,500.

Philadelphia, Pa.—The heating contract in the building of J. Downing, Sixth and Rockland streets, has been awarded to W. F. Rentschler & Bro., 2631 Girard Avenue.

Philadelphia, Pa.—Harry C. Mellon, 2121 Locust Street, has secured the heating contract in the building at 21st and Ludlow streets for John Short & Bro. Price, \$3,100.

Hudson Falls, N. Y.—Homer S. Gauthier has secured a contract to install plumbing in the residence being erected on upper Broadway, Fort Edward, for John Sullivan.

Grand Rapids, Mich.—Among recent contracts awarded the Sproul-McGurrian Co., 37 S. Division Street, is the plumbing in the Ypsilanti Reed Furniture factory at Ionia.

Topeka, Kan.—Johnson & Beck, 830 Kansas Avenue, have been awarded the contract to install the heating system in the Santa Fe roundhouse, pattern shop and coach shop, to cost \$10,000.

### EFFORTS OF DOMESTIC ENGINEERING ON STATE HEALTH BOARD MATTER APPRECIATED.

The Chicago Daily News of January 17th printed the following communication from a Chicago master plumber on the subject of membership on the Illinois state board

#### PLUMBERS AND HEALTH BOARD.

When the Master Plumbers' Association of Illinois meets in its convention hall at Springfield Jan. 27, one of the vital subjects to be discussed will be the proposition of having a master plumber or practical sanitary engineer as a member of the state board of health in this state.

The majority of the master plumbers and sanitary experts of the state are in favor of this innovation. At the Springfield convention resolutions will be introduced endorsing the idea and copies will be forwarded to Governor-elect Dunne, who, it is hoped, will accord with our views and appoint one of our craft on the state board. This board is now composed entirely of physicians. Their knowledge of sanitation as it affects sewage disposal and sanitary plumbing is more or less theoretical. Therefore they stand in need of the practical advice of an intelligent master plumber, who should be associated with them as a member of the board.

Gov. Harmon of Ohio is now contemplating the move that we shall recommend for Illinois, according to a recent article in Domestic Engineering, the master plumbers' trade paper of America. The master plumbers of Ohio are a unit in favoring a sanitary expert on the health board of that state. Such an appointment would tend toward the conservation of the health of the people of the state. It is to be hoped that Governor-elect Dunne will see the necessity of having a practical sanitary expert on the Illinois state board of health.

A MASTER PLUMBER.  
Chicago.

From "The Chicago Daily News."

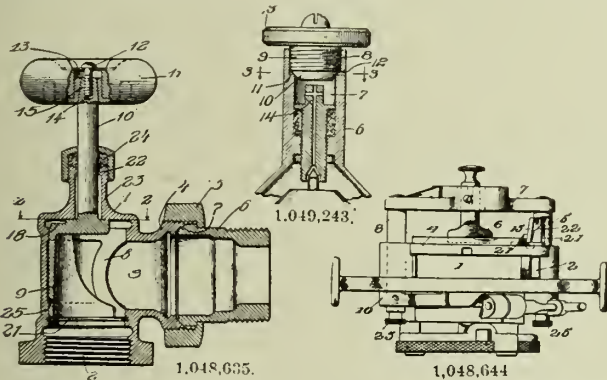
of health. This matter has been mentioned a number of times, and the work along this line should result in much good.

# Patents

## Heating Department.

1,048,635. Valve. Cletus Nicholas Allerding, Mansfield, Ohio., assignor to the Ohio Brass Co., Mansfield, Ohio, a corporation of New Jersey. A valve comprising a cylindrical housing with an end opening and a side opening, an integral valve and valve stem, the valve stem protruding through the end of the housing opposite to the end opening, and a spring ring positioned in the open end of the housing and operative to hold the valve in the housing and to press it against the closed end thereof, portions of the said valve being cut away, forming resilient extensions to retain the valve closely in longitudinal position in the housing.

1,048,644. Pipe-Threading Tool. Bradford Borden, Toronto, Ontario, Canada, assignor to the Borden Co., Warren, Ohio, a corporation of Ohio. In a pipe-threading tool, the combination with a rotatably and longitudinally movable chaser-carrier, and a series of radially-arranged chasers, of a chaser engaging plate rotatable with, and also relatively to, the chaser carrier, said plate having an inclined surface of varying inclinations, and a post between which and said carrier there is a relative longitudinal movement, said post having a diagonally arranged lug for engaging said inclined surface of the chaser engaging plate for controlling the independent rotation thereof during the threading operation and with which, at the completion of the threading operation, the greater inclination of said surface will engage to allow said plate to be turned at an accelerated speed by the pressure of the pipe on the chasers.



1,049,243. Air Valve for Radiators. Fred W. Leuthesser, Chicago, Ill. In a device of the class described, the combination of a casing adapted to inclose and contain automatic air valve mechanism, a hollow neck rigidly attached to the top of said casing, adjustable valve-seat mechanism in said neck, said neck being of a size to accommodate a tool for adjusting said valve seat, said neck being of increased diameter at its upper end, producing a shoulder within the interior of said neck above said valve-seat adjusting mechanism, a screw-threaded imperforate plug entered into the open upper end of said neck and forming a closure for said open end, the lower end of said plug seating against said shoulder and remaining at all times above said valve-seat adjusting mechanism, the wall of said neck being provided with an air vent opening extending transversely therethrough.



Send for Booklet  
"The Reason They  
Never Split"

It Is Free to Plumbers  
We Have One  
FOR YOU

This Trade-Mark  
Is on the Under-  
side of Every Genuine

**NEVER SPLIT**  
CLOSET SEAT

A  
Closet  
Seat  
That  
Satisfies  
The Rigid  
Demands  
of

**The United States Government**

*Will Certainly  
Satisfy Your  
Most Exacting  
Customers*

We have a contract with  
the U. S. Government  
to furnish all the Closet  
Seats they may need.

**NEVER SPLIT SEAT CO.**  
EVANSVILLE, IND., U.S.A.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

## Situations Open.

A LARGE PRINTING HOUSE HAS excellent positions to offer young men who are experienced in compiling catalogues for the plumbing, steam and mill supply trade; also positions for young men with a knowledge of plumbing, steam and mill supply materials. Address Box 918, care of "Domestic Engineering," Chicago.

1-25, 2-1-8

WANTED—CAPABLE MAN IN WHOLESALE plumbing supply house. One familiar with steam as well as plumbing lines preferred. Must be able to give roughing-in measurements, enter orders and attend to correspondence. Address Box 916, care of "Domestic Engineering," Chicago, Ill.

1-25

WANTED—FIRST CLASS SALESMAN to cover territory in southern Michigan, northern Ohio and Indiana; one who understands the general heating and plumbing line. Give experiences, references and salary expected. Address Walker Mfg. & Supply Co., Detroit, Mich.

1-25, 2-1-8

WANTED—EXPERIENCED MAGAZINE Subscription Salespeople who can variegatedly and convincingly present the varied features of technical magazines, to travel Southern States this winter. Bond and references must be given. Commission contract worth \$100.00 to the right party. Address Box 897, c/o "Domestic Engineering," Chicago, Ill.

tf

WANTED—SALES MANAGER—YOUNG man of business ability to assist manager-proprietor of plumbers' enamelware manufacturing business; his principal work to be handling sales, agents and collecting accounts, by mail. Previous knowledge not necessary, although preferable. Must know a little stenography and typewriting and understand book-keeping quite well, although he will not have to do any, or very little. Wages less than one hundred per month. Future wages dependent on own efforts. Give past experience and full details. Address Box No. 913, care of "DOMESTIC ENGINEERING," Chicago, Ill.

1-25, 2-1

## Situations Wanted.

MAN WITH NEARLY 25 YEARS' EXPERIENCE in the heating business, familiar with all details, is at liberty to accept position of responsibility. Prefer position as sales or branch manager. Best of references. Address Box 917, care of "Domestic Engineering," Chicago, Ill.

1-25

## POSITION WANTED — ENGINEER

thoroughly versed in design, erecting, estimating and sales of heating, ventilating, power piping and automatic fire extinguishing equipment, who has perfected several heating specialties which form the basis of a very economical heating system, will be open soon for an engagement with a progressive concern who are prepared to put these specialties on the market. Address Box 915, care of "Domestic Engineering," Chicago, Ill.

1-25

## For Sale

### WELL EQUIPPED SOIL PIPE PLANT

in Birmingham district, all ready to step right into and do business; will be sold at attractive figure. For detail address Harry Verbeek, City Hall Square Bldg., Chicago, Ill.

FOR SALE—PLUMBING AND HEATING business in a thriving Ohio city of twenty-six thousand. Doing a good business. Money maker, at a bargain. Good reasons for selling. Address Box 914, care of "Domestic Engineering," Chicago, Ill.

1-25

FOR SALE: LATEST MODEL OSTER PIPE MACHINE. CAPACITY 1 INCH to 4 INCHES, INCLUSIVE. COMPLETE WITH COUNTERSHAFT, ETC. HAS NEVER BEEN USED; JUST PURCHASED FOR EXPERIMENTAL PURPOSES. FIRST CHECK FOR \$175 TAKES IT. ADDRESS BOX NO. 908 CARE "DOMESTIC ENGINEERING," CHICAGO, ILL.

tf

## Miscellaneous

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W. Lake St., Chicago. tf

PLANT WANTED—WE WANT TO PURCHASE a plant for manufacturing hot water boilers. Must be complete. State approximate price, describe equipment and give location. Address Box 910, care of "Domestic Engineering," Chicago, Ill.

1-18-25 2-1-8-15-22

## WE PUBLISH:

PLUMBING ESTIMATES AND CONTRACTS. By J. J. Cosgrove. Contains much valuable information for the master plumber, pointing the way to conduct the business of plumbing in business-like manner. Bound in cloth; 210 pages; 5½x8½ in.; postpaid, \$2.

ROUGHING-IN HOUSE DRAINS. Edited by John K. Allen. A complete guide to roughing-in plumbing from the digging of the sewer to the finishing length of the house-drain. 38 illustrations; bound in boards; 6¼x4¼ in.; 184 pages; postpaid, 50 cents.

SANITATION IN THE MODERN HOME. An invaluable guide to the architect, plumber, heating engineer and house owner, telling just what is necessary to make a home completely sanitary from the subsoil to the roof. 8x5¼ in.; 273 pp.; bound in cloth. Postpaid, \$2.00.

TABLES FOR CALCULATING SIZES OF STEAM PIPES. These tables furnish a method of sizing the pipes for low pressure steam heating based upon the loss of pressure per lineal foot, without laborious mathematical calculations. Bound in cloth; 4½x6½ in.; 47 pp. Postpaid, \$2.00.

NOTES ON HEATING AND VENTILATION. Third edition. This book is a resume of lectures delivered to classes in heating and ventilation at the University of Michigan. It is written primarily for the steamfitter and designer of heating systems. Reduced to as brief a form as possible, so that readers can readily find notes or data desired. Bound in cloth 5½x8½ inches; 226 pp.; postpaid, \$2.50.

AIR VALVES FOR STEAM HEATING systems. By W. H. Wakeman, author of "Engineering Practice and Theory." Postpaid, 25 cents.

WROUGHT-PIPE DRAINAGE SYSTEMS. By J. J. Cosgrove. An invaluable aid to those who install iron pipe systems. Bound in cloth; 150 pages; 5½x8½ in.; postpaid, \$2.

"RULES AND DATA ON FAN HEATING and Ventilation," or "Flow of Steam Through Pipes" will answer the questions that have puzzled you. Practical. Blue print form. Thomas Tait, Moline, Ill.

8-17

MAKING THE BUSINESS PAY. LETTERS of John Burton, retired successful plumber and steamfitter, to his nephew still in business. Practical, instructive, entertaining, a guide to better business. Cloth bound, 5½x7¼ in.; 168 pp. Postpaid, \$1.00.

HEATING AND VENTILATING BUILDINGS. By Prof. R. C. Carpenter, Cornell University. Describes the latest improvements in the art of heating and ventilation for the technical readers. Bound in cloth, 9¼x6 in.; 562 pages; postpaid, \$4.

STANDARD HEATING SPECIFICATIONS AND CONTRACT BLANKS. For low pressure steam and hot-water heating apparatus offers a dignified legal form for specification proposal and contract for the general use of steam and hot-waterfitters. Printed on linen paper; 14x8½ in.; 4 pages. Price of either steam or hot-water or mixed blank, 50 copies, \$2.50.

A MANUAL OF TECHNICAL PLUMBING AND SANITARY SCIENCE. By S. Barlow Bennett, Consulting Sanitary Engineer. Treats of every branch of the subject in a clear and practical manner; especially adapted to the needs of those making a thorough study of sanitation and public health. 9½x6 in., 300 pages, over 400 diagrams and photographs, bound in cloth, postpaid, \$2.00.

A PRACTICAL MANUAL OF STEAM AND HOT-WATER HEATING. By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth, 5½x3½ in., 359 pp.; postpaid, \$2.50.

MODERN PLUMBING ILLUSTRATED. By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

Address:

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago

Kindly quote "Domestic Engineering" in writing advertisers.



# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing Heating Ventilation and all Matters pertaining to Domestic Sanitation*

Whole No. 1051

CHICAGO, FEBRUARY 1, 1913

Vol. 62, No. 5

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

## EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

## ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

## TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## THE PARCEL POST AND MAIL BUYING.

THE plumbing and heating trades have in the past few months given some serious thought to the question of mail order competition. The new parcel post law has brought this question more forcibly before the trade, and discussions and opinions are now forthcoming that before this time had lain dormant.

While it is quite true that the parcel post has comparatively little direct bearing on the plumbing and heating business, its ramifications through other retail channels have an effect that is felt all along the line.

The encouragement to the public to do more buying by mail—a habit that is undoubtedly growing and that bids fair to present a grave problem to the local dealer in whatever line—is a direct result of the parcel post.

The purchase of plumbing and heating supplies by mail is naturally confined largely to the smaller towns and rural communities, especially where no plumbing ordinances are in effect to aid the local plumber.

Some of us have sat back, with our feet cocked up on the office table, and laughed over the discomfiture of the farmer or suburbanite in attempting to put in his own plumbing and heating job.

But have we been justified in doing so? What method of business makes it possible for him to attempt such work himself?

We venture to assert that scarcely a single homeowner has bought plumbing and heating equipment by mail because he preferred that method of buying. There was some other reason—**apparent** attractiveness in price offered by the mail-order concern—lack of enterprise by the nearest plumber or heating man—or the popular notion, well advertised by the comic papers, of the plumber's rapacious financial methods.

The whole thing gets right down to this—what have you, as plumbers and fitters, done to counteract these false impressions? How much **confidence** have the people for fifty or a hundred miles about you, in your standing as a **merchant**? Or are you known to them at all? Have you done **your** part to hold business at home?

There are several mighty good ways to inspire the confidence of the public. Personal acquaintance, of the business-like kind, with a reputation for aggressive methods and fair dealing, will secure the commendation of the public.

Personal acquaintance can be furthered greatly by getting these same people **into your store**. To do this you must let them know you are in business, tell them what you are prepared to do for them, and convince them that you are prepared to meet outside competition on its merits.

It is **misunderstanding** that causes the owner to be suspicious of his local dealer. You must overcome this **misunderstanding**—by advertising your store, your goods and your ability as a sanitarian.

Don't be afraid to use liberally of printer's ink—mix it with brains, and you will see results that no other method can produce.

And you will have met Mr. Mail-order Competitor on his own ground—for can't you back up **your** advertising by being on the ground, and by your **personal reputation** for good work already performed?

There are a lot of good men in the business today who have adopted these methods. They are the men who have made good with their customers and with the banks, and whose ratings are found most satisfactory in Dun and Bradstreet.

There is room for many more such men in the business—if **your** name is not in such a list, it is not too late to put it there.



# A Remodeled Heating and Ventilating Job

The Broadway Convention Hall, Owned by the City of Buffalo, N. Y., Has Recently Undergone an Interesting Transformation

THE City of Buffalo, New York, has recently entirely remodeled its Broadway Convention Hall, which is located on Broadway between Potter and Milnor streets. This work was carried on under the supervision of Francis G. Ward and Henry Humrill, jr., deputy building commissioners, from plans and specifications prepared by Col. H. L. Beck, architect, of Buffalo, N. Y. This convention hall is owned by the City of Buffalo and is utilized for city purposes such as the giving of free concerts, lectures, etc., and is also rented for private occasions by the thrifty municipality. The heating and ventilation scheme

from outlets located about 3 ft. from the rear end; the safety valve is also attached to this equalizing connection. On the bottom of the boilers a 4-in. inlet is provided for the returns. The grates are of the shaking type and of an area sufficient to develop 100 horsepower from each boiler.

A blowoff tank is provided which is 2 ft. in diameter and 3 ft. long, being constructed of  $\frac{1}{4}$ -in. steel with a handhole,  $2\frac{1}{2}$ -in. waste and  $2\frac{1}{2}$ -in. overflow to the sewer.

A 2-in. vapor pipe is also connected to this tank and is extended up to the top of the smoke stack, having a

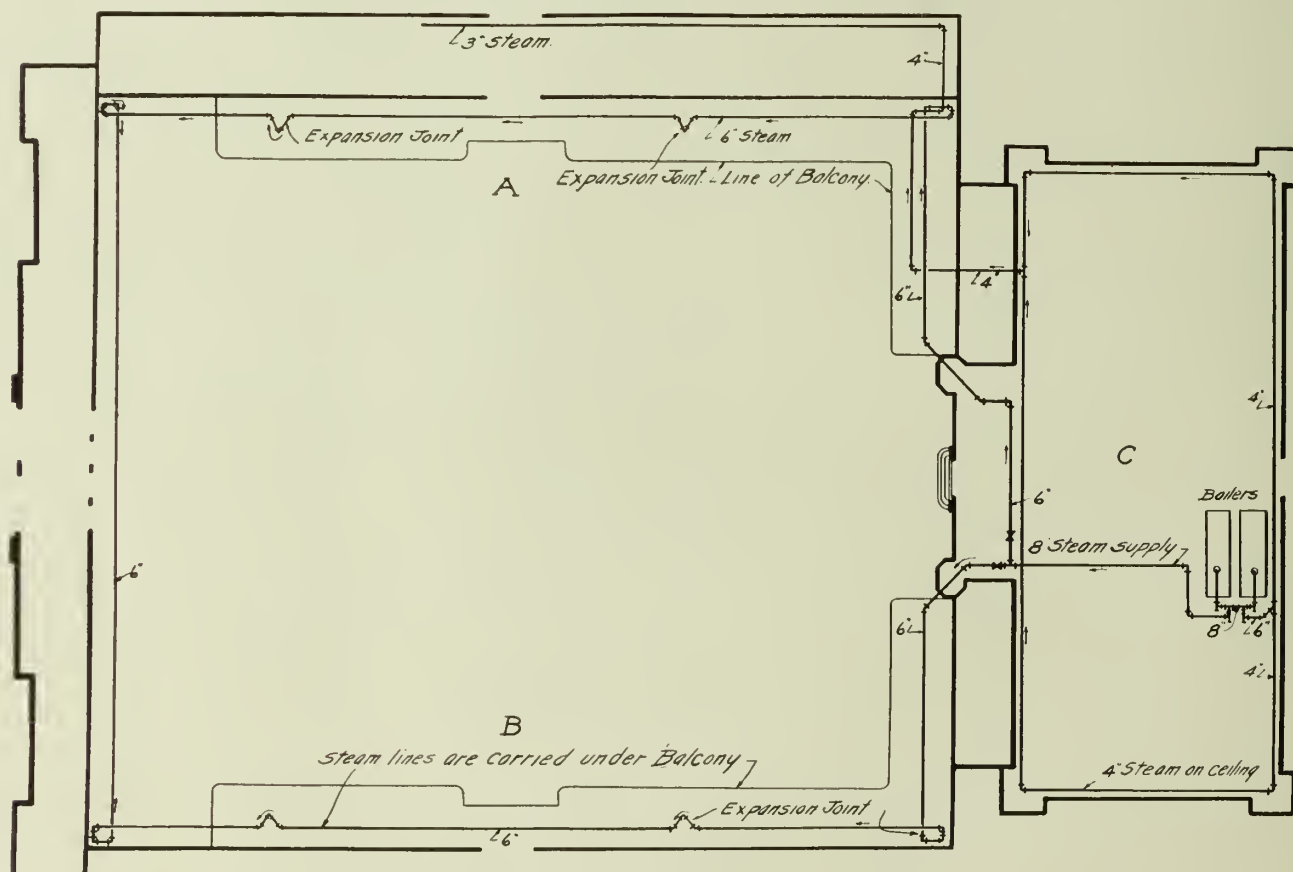


Fig. 1. General Arrangement of Heating System.

which was installed by the Daniel Burgmaster Co., of Buffalo, is very briefly outlined in the following:

## Steam Supply.

Two horizontal multi-tubular boilers furnish the steam supply for heating the building and are arranged to operate under low pressure. Each of these boilers is 66 in. in diameter and has 88 3-in. flues 16 ft. long. The shells are  $\frac{3}{8}$  in. in thickness with horizontal double riveted seams and single riveted transverse joints. The heads are made of 7/16-in. metal while the flues are of charcoal iron expanded into the heads with a Duncan expander. A manhole is located on the top of each boiler and also another in the front head below the tubes.

The steam supply is taken from these boilers through a 6-in. cast iron flange, riveted about three ft. from the front head, while a 4-in. equalizing connection is extended

2-in. valve located where it leaves the tank. The blowoff pipe from the boilers to the tank, and from the tank to the sewer, is  $2\frac{1}{2}$  in. Blowoff cocks are provided back of the boilers and blowoffs are placed on the main steam and return connections from the main building, these being also connected to the boiler blowoffs.

The boilers are set in brick masonry with a bridge wall carried up to within 12 in. of the underside of the boiler, this bridge wall being in the shape of an inverted arch and conforming to the shape of the shell of the boiler; the tops of the boilers are covered with 4 in. of brick. The smoke connection and breeching between the boilers and the stack is made of No. 12 gage sheet steel riveted and provided with dampers. Each boiler is provided with a separate feed water connection located in the rear, with the customary globe and check valve.

### Direct Steam Heating.

The heating system in this convention hall consists of direct steam radiation only, but involves a few novelties as shown in the details. Fig. 1 is a general layout of the hall showing the position of the boilers relative to the rest of the building and also shows the general pipe runs. A detail of the piping in the section of the hall

main return is 5 in. in diameter, enlarging to 6 in. at the rear of the boiler and equipped with swinging check valves and so arranged that condensation may be returned by gravity. Separate valves are provided for both the main and return pipe supplying the various sections so that the direct radiation can be supplied separately or together.

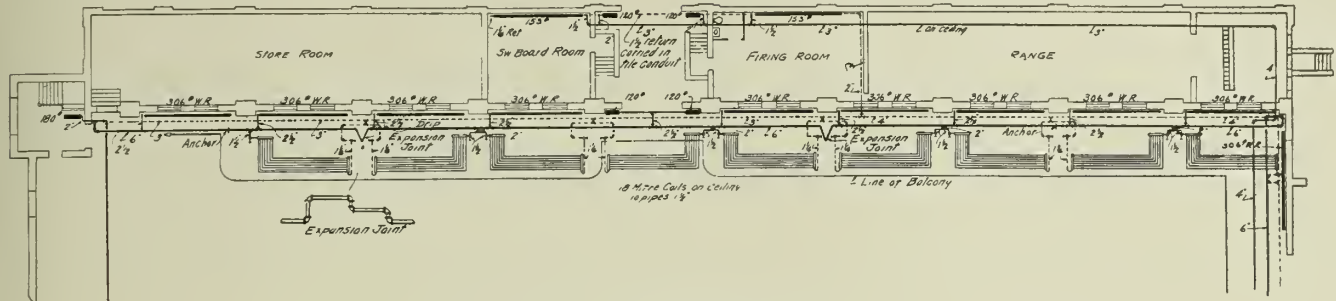


Fig. 2. Detail of Heating System, Near "A."

marked "A" is shown in Fig. 2, and the piping on the opposite side at "B" is similar. The detail of the arrangement in the rear of the structure and around the boilers is shown in Fig. 3.

The pipe joints are made up absolutely tight without the use of any compound and valves are provided throughout, as shown, in a very complete manner. The heating main supply is 8 in. in diameter and is equipped

### Radiators.

Radiation is of the cast iron sectional type; it is connected to an overhead pipe system in the main building. Besides the direct cast iron radiators, wall coils are also provided in some places as shown in the details, all of which are connected to the risers with expansion pieces and with corner or offset nickel plated radiator valves having right and left nipples.

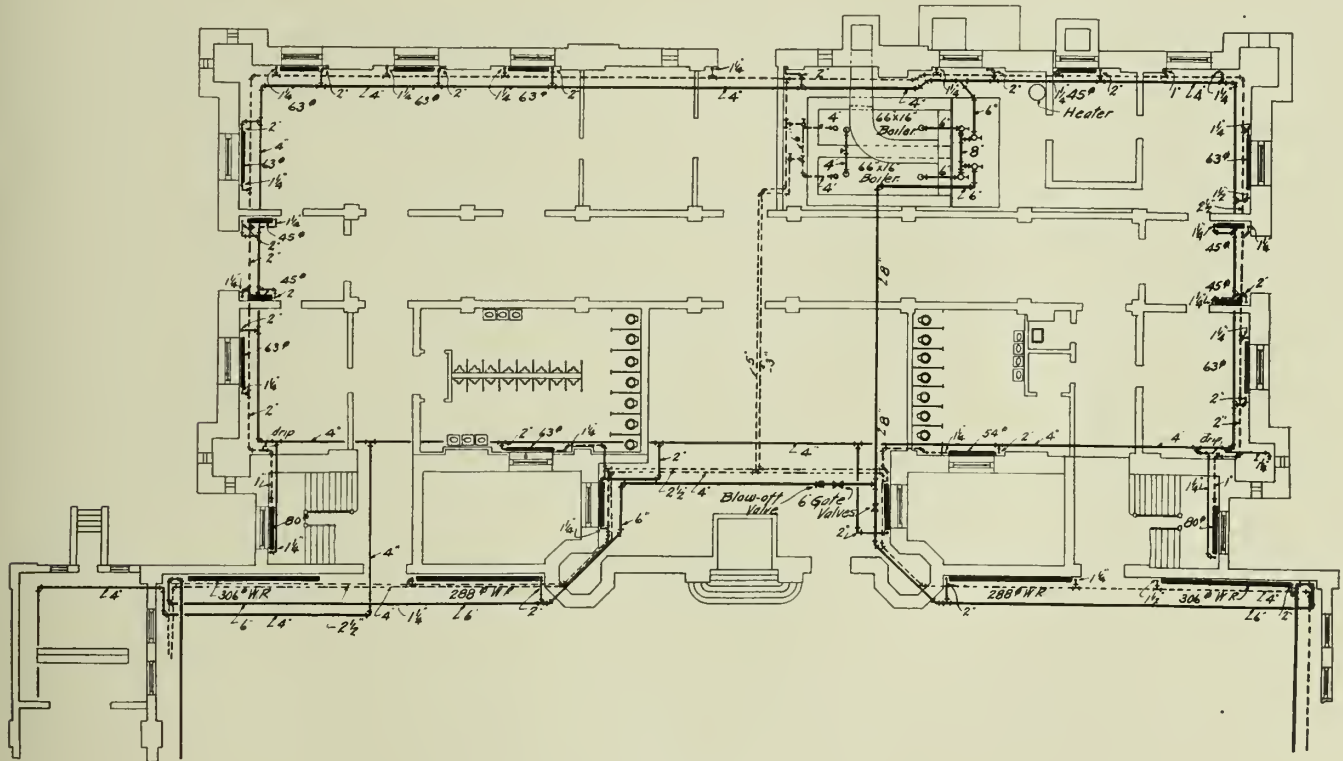


Fig. 3. Detail of Heating System, Near "B."

with expansion joints and anchors. This main supply is extended from the boilers to the various branches and the mains, the branches and risers for all wall radiation, coils and radiators being relieved and connected into the main return. The supplies and returns for the switch-board room, east entrance, and pistol range are connected into the supplies and returns in the rear building. The

The standard radiation in the main building is connected up on the one pipe system while all other radiation in both buildings is run on two pipe, and whenever supplies are extended from the risers at the ceiling line with one or more radiators on the branch a drip line is extended from this branch down to the return. The ceiling coils are equipped with air valves having 1/4-in. nipples with 3/8-in.



union connections, while the cast iron radiation is equipped with four-way drain valves and keys. A 1-in. air line is run on each side of the main building and connected to the air valve on the ceiling floor. This line is extended to the boiler room and a seal in a 6-in. air pipe chamber is provided with an overflow extended to the cesspool. The wall radiators are supported on adjustable wall brackets and each row of wall radiation in the main building, pistol range, and in the switchboard room is supported on four wall brackets fastened to wall cleats with lag screws. All the other wall radiation is supported on two brackets for each row, except the wall radiation in the balcony, which has three brackets.

### Coverings.

The steam mains and return pipes throughout the entire work are covered with sectional pipe covering with brass clasps, and fittings and valves are covered with plastic material of the same thickness. The smoke connection and breeching is covered with plastic asbestos  $1\frac{1}{2}$  in. thick, which is canvas jacketed. Whenever pipes are run underground they are laid in conduits which are covered by checkered steel plates  $\frac{1}{4}$  in. in thickness and made of sections 6 ft. long. All wall radiation and exposed piping together with the coils and radiators are painted with a coat of bronze paint.

## Value of Pipe Covering in Dollars and Cents

By Otto E. Trautmann

THE subject of covering steam and hot water pipes is one with which every one is more or less familiar and yet the ordinary house owner can ask questions about covering—questions that are in every way reasonable, intelligent and quite natural—that the ordinary heating man cannot answer off hand and often of such a nature that many a heating man finds it quite difficult to make proper replies, properly backed up by figures. While there is usually little question but that covering the basement pipes and boiler of any steam heating or hot water system does result in a saving on the fuel supply, the actual amount saved is not so easy to determine.

In the first place it is necessary to determine the heat loss resulting from a bare pipe installation (which is not very difficult) and then the heat loss resulting after the application of the covering (for which the results of various experiments may be used). Having these two quantities it is a matter of subtraction to obtain the saving of heat units effected by the application of the covering. But, this is not enough! The average house owner never heard of a B. t. u. and only understands and appreciates an argument expressed in actual dollars and cents. Therefore let us see how we can get the economy expressed in such a manner.

In order to find the valuation of the saving effected by the covering it is necessary to go way back to the beginning of the heating problem and to produce an estimate of the cost per B. t. u. developed. This cost, of course, depends on the fuel used, the price of the fuel, the number of hours of operation and other factors. The saving on the covering is determined by the type of covering used, its thickness, the number of hours of operation, the temperature of the pipes, etc.

In spite of all these apparently variable factors the average house heating job is not so unique but that by using average values and good judgment in making the necessary assumptions a result can be attained which is not only logical but quite likely to be very closely approximated in actual practice.

The writer takes pleasure in presenting the following method of making such an estimate with the full realization that some of the assumed amounts may not be acceptable or even reasonable for all localities, (for instance, the price of coal per ton); but it is believed that with the proper substitutions to suit the local conditions in place of the figures given, the following of the same

method, will have good, practical and reliable results.

Since concrete examples and actual computations are always more interesting than a lot of miscellaneous formulas and generalities, let us take a common, one pipe, low pressure, direct-steam residence heating system with a surface radiation of, say, 400 square feet. Every heating man should know approximately how much fuel an average house of given size will require to keep it reasonably well heated during an ordinary winter season in his locality, and with such information the approximate quantity required for our exemplar residence should not be at all hard to estimate.

The first assumption which is entirely dependent on judgment then, is the amount of coal that will probably be consumed for the installation being considered. After careful consideration of the exposure and quantities required in other similar houses in the same locality suppose we assume a consumption of 15 tons of coal per year, with the basement pipes and boiler covered.

Now if the pipes and boiler in the basement are left bare it is equivalent to adding that much radiating surface to the system and to heat loss of almost equal amount—(this will not be quite as much, as some of the extra heat lost in the cellar is bound to find its way upstairs and help warm the first floor). Suppose that on counting up the exposed basement piping and boiler radiating surface we get a figure equal to about 20 per cent of the radiator surface or, say, 80 square feet. If we assume that 15 per cent of the cellar heat finds its way up to or helps out the first floor, then the actual loss per operating hour from the bare pipe will amount to 85 per cent or 80 square feet surface multiplied by the number of B. t. u. emitted per square foot..

As the **average** efficiency of ordinary wrought iron steam pipe under usual conditions amounts to about 250 B. t. u. per square foot per hour, then the loss per hour will be 85 per cent of  $80 \times 250$  or 85 per cent of 20,000 which is 17,000 B. t. u. per hour of operation.

According to standard authorities ordinary 1 in. thick magnesia sectional pipe covering such as is ordinarily used for such purposes gives a saving of about 70 per cent or  $17,000 \times .70$  equals 11,900 B. t. u. saved per hour.

It is customary to assume on the ordinary house heating boiler that the number of B. t. u. effectively absorbed from a pound of good anthracite coal runs about 8,000. Then if 15 tons are consumed during the winter a total of about  $8,000 \text{ B. t. u.} \times 15 \times 2,000$  are delivered into

the house or 240,000,000 B. t. u. in the season. To get this down to cost per million B. t. u. with coal at say \$6.00 per ton we have

$$\frac{\$6.00 \times 15}{240} = \frac{90.00}{240}$$

or about 38 cents per million B. t. u. Then if our pipe and boiler surface exposed in the cellar amounted to 20 per cent of the radiator and riser surface we would have a total loss in the cellar during the season of 240 million B. t. u. times 20 per cent, less 15 per cent of the loss which finds its way back upstairs again. This results in

planation offered before taking each step, so let us summarize our calculations as follows:

Radiator and riser surface, 400 square feet.

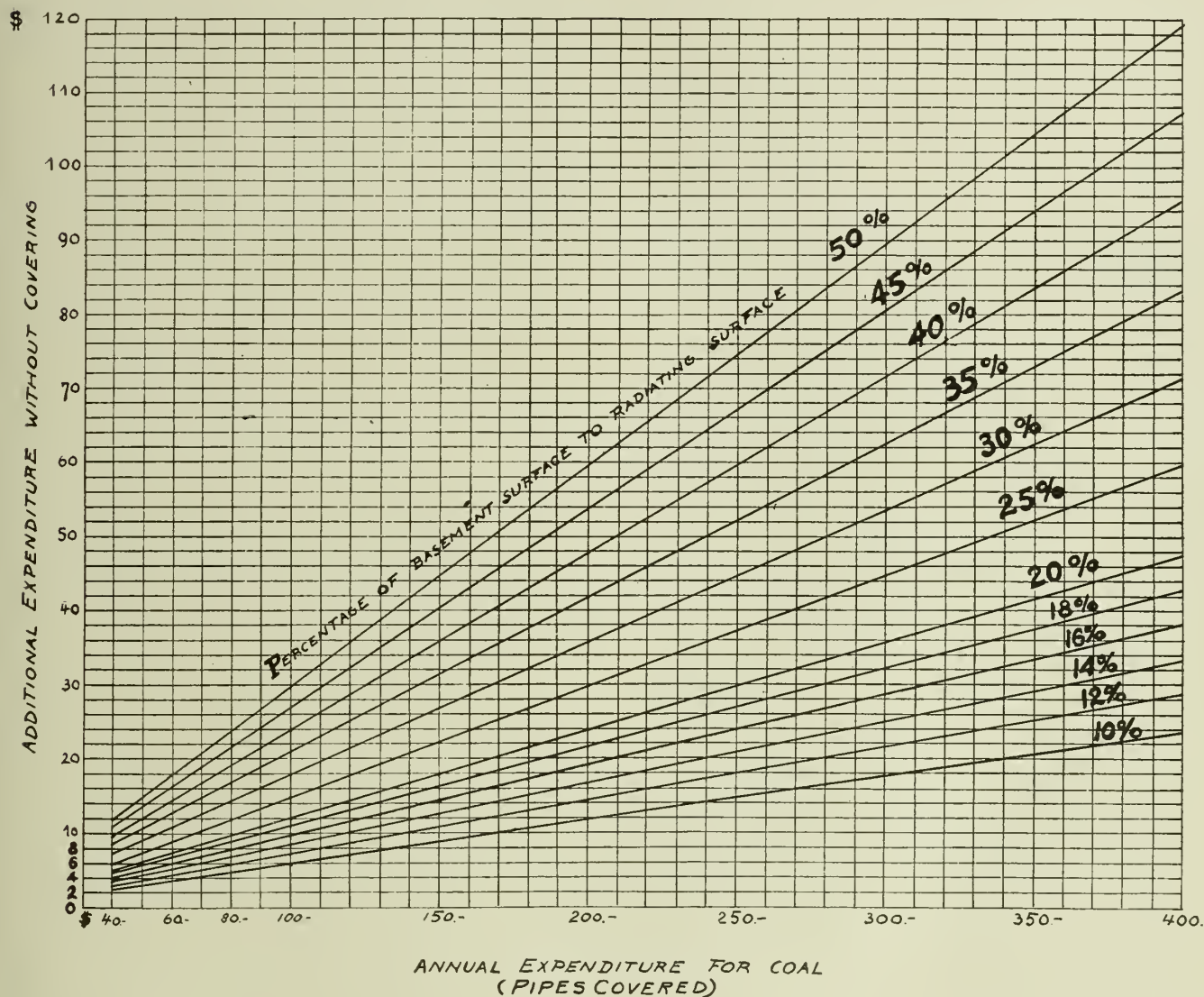
Basement and boiler surface, 80 square feet (20 per cent more).

Amount of basement heat radiated to upstairs assumed, 15 per cent.

Actual basement loss, 100 per cent minus 10 per cent, 85 per cent.

Coal per year to heat upstairs, 15 tons at 8,000 B. t. u., equals 240 million B. t. u.

Cost of coal per year at \$6.00 per ton, \$90.00.



240 million x 20 per cent (48 million) less 15 per cent of the loss (7 million approximately) giving a result of 41 million B. t. u. for the season. At 38 cents per million 41 x .38 equals \$15.58 loss per year on bare pipes.

Now if standard 1-in. covering will save about 70 per cent of this as previously noted the saving per season will amount to \$15.58 x .70 or \$11.00. Assuming roughly a cost to cover this covering installation complete of \$45.00 it will take about four years to pay for the cover or, expressed another way, an investment of \$45.00 under these conditions yields \$11.00 per year interest which is an interest rate of \$11.00 divided by \$45.00 or 24 per cent plus.

Now all the above may impress the reader on first inspection as being rather complicated, owing to the ex-

Cost per million B. t. u., \$90.00 divided by 240 equals 38 cents.

Basement loss per year 80 square feet x 85 per cent x 250 B. t. u. (uncovered).

Basement saving per year 80 square feet x 85 per cent x 70 per cent x 250 B. t. u. (covered).

Saving at 38 cents per million B. t. u., \$11.00.

Cost of covering estimated at \$45.00.

Number of years to pay in full, 4 plus or interest on \$45.00 investment, 24 per cent.

Had there been a hot water system in use (instead of steam) and other conditions being the same the results would probably work out somewhat as follows:

Radiator and riser surface, 40 more, or 560 square feet.



Basement piping and boiler surface, 168 square feet (30 per cent more).

Percentage of basement surface to upper floors

$$\frac{168}{560} = 30 \text{ per cent.}$$

Amount of heat radiated upstairs, 15 per cent.

Actual basement loss, 100 per cent minus 15 per cent equals 85 per cent.

Coal to heat upstairs, 15 tons, at \$6.00 a ton, \$90.00.

Fifteen tons at 8,000 B. t. u., 240 million B. t. u.

Cost per million B. t. u., 38 cents.

Basement loss per year, 30 per cent of 240 million x 85 per cent x 70 per cent.

Basement saving per year, 30 per cent of 240 million x 85 per cent x 70 per cent, equals 44 million.

Forty-four x 38 cents equals a saving of \$16.72.

If the methods of figuring given seem logical they can be greatly shortened for practical use as follows:

On an annual coal expenditure of \$90.00, about \$11.00 is saved or

$$\frac{11.00}{90.00} = 12 \text{ per cent increase in coal if covering is}$$

omitted. This same figure applies to hot water also, but the **return on the investment** for hot water covering is not the same, as an equivalent installation in hot water contains more surface and consequently costs more to cover than a steam system.

It is possible to compile the results and to show by means of curves, as given in Fig. 1, the exact saving effected in the annual coal bill for various amounts and percentages of pipe covered. This diagram makes it unnecessary to figure or calculate in any manner beyond fixing the percentage of surface in the basement when compared to the upper floors. To use this diagram properly all that is necessary is to understand that the amounts written along the bottom represent the total estimated cost of heating the house when the basement pipes are properly covered, as is usually the case, and the figures given on the left-hand side represent the actual additional expenditure necessary if the basement pipes are left uncovered.

For example, suppose that you estimate that a certain house would require about \$60.00 worth of coal to heat it under normal conditions with the basement pipes covered; then to find out what it would take with the basement pipes exposed we find by calculation that the area of the basement pipes is 25 per cent of that of the upstairs radiation. With these two figures in mind we follow along the amounts given on the bottom of the diagram from the left toward the right and we soon come to a line marked \$60.00. Going up this line toward the top of the page we continue until we come to the heavy diagonal line marked 25 per cent. The point where the \$60.00 line crosses the 25 per cent diagonal is a certain distance above the bottom of the figure representing the additional amount necessary to heat with the extra 25 per cent of exposed surface uncovered. To find out this valuation in dollars and cents simply run the finger horizontally to the left from the intersection of the two lines just mentioned and it will be found that this intersection occurs almost exactly midway between the lines marked 8 and 10, showing that the additional expenditure would amount to \$9.00. Had the percentage of basement piping been 40 per cent, we should have simply continued on up the 60 line until we struck the 40 per cent diagonal and then across to the left, coming out about \$14.00, since each space represents \$2.00 in the vertical direction. Had our coal bill been \$100.00 estimated and our basement

piping only 20 per cent, we should have followed up the 100 line, instead of the 60, until we struck the 20 per cent diagonal, and then over to the left, coming out one space above the 10 line or \$12.00. This diagram will work equally well on either steam or hot water installations, the only point which the writer thinks might be objected to being the assumption that the radiating surface of wrought iron pipe is exactly proportional in heat loss per square foot to the cast iron radiation used on the upper floors. Theoretically the wrought iron pipe will lose more heat per square foot but it is considered that owing to the fact of a considerable portion of the basement piping carrying returns which are of a considerably lower temperature, this will reduce the efficiency of the wrought iron somewhat, so that it is likely to pretty nearly equal the ordinary cast iron radiator containing nothing but steam.

#### POPULAR SCIENCE BRIEF ON THE RADIATOR.

The Radiator is a musical instrument. In the early morning it is an instrument of percussion, but when the janitor has finished "What Society Is Doing," it doubles in brass and sounds like a hare-lipped B-flat tuba, writes K. M. S. in "The Chicago Tribune." Besides encouraging early rising, the radiator is expected, according to the lease, to keep the apartment at a "reasonable temperature." The tenant construes this to mean 211.9° F., but the landlord insists that it ought to be 32.1°, the idea being to develop enough heated arguments to make artificial heat unnecessary.

Many heating engineers still maintain that the heat given by the radiator depends upon the radiating surface. But numberless experiments have proved that radio-activity is directly proportionate to the degree of satisfaction in which the Yuletide harvest has left the Janitor.

There is some controversy among architects as to where the radiator ought to be placed, but most of them now favor putting it along the only wall on which a picture could be hung to advantage.

It would seem to the uninitiated that during the summer the Radiator represents the apex of inutility. Nothing, however, could be farther from the truth, as its peculiar and fireproof construction makes it at all times an ideal receptacle for cigar stubs, ashes, etc. Some trouble may be experienced with radiators which leak, and a certain test for this is to turn the steam on full, seal the apartment hermetically, and go downtown shopping. If, upon one's return, the family downstairs hasn't called up the fire department and life saving crew, but is paddling about contentedly in the baby grand, the leak may be dismissed as too inconsequential to merit attention.

The Radiator also plays an important part in motoring. Very often people are run over and do not know what struck them. To these I would explain that, in nine cases out of ten, it was the radiator, it being the first point of contact.

#### Hilda's New "Yob."

A Chicagoan who employs a Swedish maid overheard the following conversation the other day between her cook and the maid next door, also a Swede:

"How are you, Hilda?"

"I well, I like my yob. We got cremated cellar, cemetery plumbing, elastic lights—and a hoosit."

"What's a 'hoosit,' Hilda?"

"Oh, a bell rings. You put a thing to your ear and say 'Hello,' and some one says 'Hello,' an' you say 'hoosit.'" —British American.

# Questions and Answers

## WHY SHOULD CAST IRON PIPE BE USED WITH DURHAM SYSTEM?

Editor "Domestic Engineering":—Please let me know why most plumbing ordinances in dealing with the Durham system, make it compulsory to use cast iron pipe whenever any part of the piping is run underground.

Milwaukee, Wis.

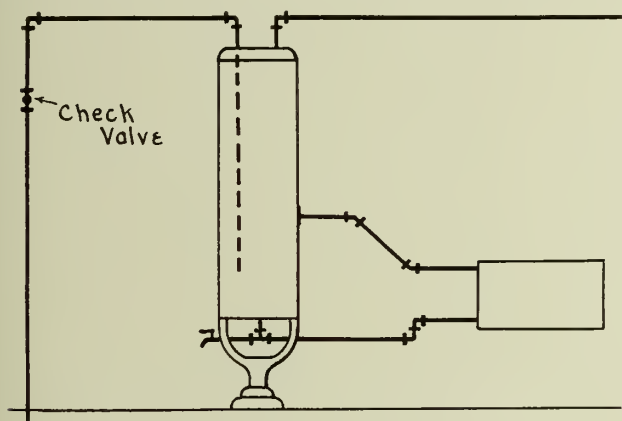
James A. Lang.

The reason for this requirement is a very simple one. In the Durham system, the piping used is either wrought iron or steel, and the life of such pipe when buried underground, is very much shorter than the life of cast iron pipe so installed.

Cast iron pipe that has been buried scores of years in the ground will often show practically no injurious effects.

## QUESTION ABOUT USE OF CHECK VALVE.

Editor "Domestic Engineering":—Will you kindly explain in your next issue, why it would be wrong to use a check valve on the cold water supply to a range boiler.



Sketch Showing Where Check Valve Is Used.

I enclose rough sketch of a boiler with a check valve used in this way.

Cleveland, O.

A. B. G.

The question that "A. B. G." brings up is very easily answered, although for some reason many workmen do not seem to be very clear on it.

When water is supplied to the range boiler from an attic tank, a pipe is carried up to the tank, from the high point of the hot water piping, terminating with an open end over the tank. The purpose of this pipe is to provide expansion for the hot water.

In the use of the city supply, carried direct to the boiler, however, such means would be impossible, as any expansion pipe could not generally be carried to a point above the head of the supply. Moreover, it is not necessary to use such a pipe on the direct pressure system, for the reason that there is sufficient expansion at all times, back through the supply piping, against the head. It will readily be seen, however, that when this expansion is cut off by any means, such as the use of a check valve, there

is great danger that the lack of expansion will result in the explosion of the boiler. It is for this reason that check valves should never be used on the supply to the range boiler.

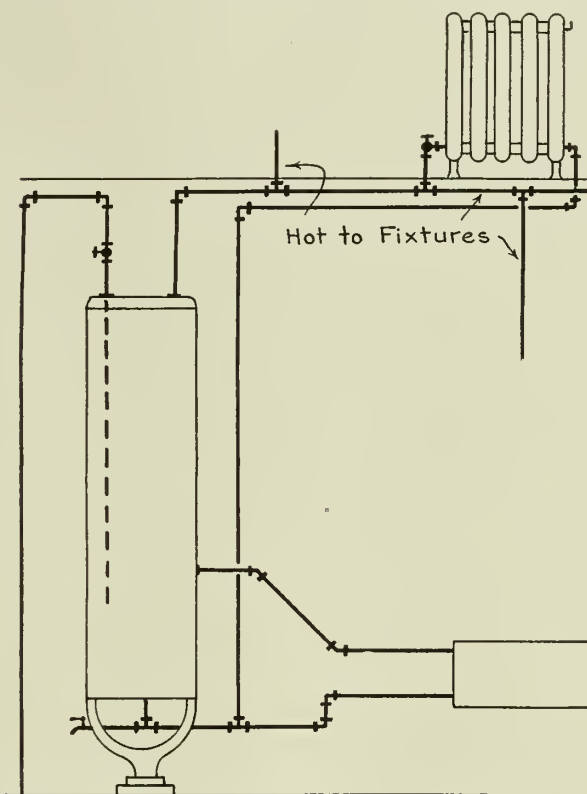
## HOW TO HEAT A BATH ROOM RADIATOR.

Editor "Domestic Engineering":—I have a radiator to heat in a bath room nearly over the kitchen, and wish to know if I can do it by connecting it to the hot water piping from the boiler. Please show a drawing of the proper connections.

Brooklyn, N. Y.

J. C. O'Connell.

We suppose that the bath room to be heated is of ordinary size, and that the supply of hot water from



How a Radiator Can Be Heated from a Range Boiler.

the boiler is ample. If these two conditions are fulfilled, we do not see why the work should not be accomplished as suggested by our correspondent, and in the accompanying illustration we show how the connections may be made. The only danger from such combinations as this is that the radiation will draw so heavily on the hot water supply that the latter will become inadequate to the needs of the house. If this is found to be true, the hot water can be checked off at the radiator whenever necessary, by use of the valve.

## WHAT WILL CLEAN PLUMBERS' BRASS WORK?

Editor "Domestic Engineering":—We would appreciate it if you would publish in the next issue of "Domestic Engineering" something showing how to clean plumbers' brass work.

St. Louis, Mo.

Dowd & Smith.

Before applying any cleaning process to plumbers' brass, it should be washed in a solution of potash and soda in



warm water, or in strong soapy water, in order to remove any grease. A very satisfactory mixture for cleaning rough brass may be made according to the following: Melt together 3 parts of vaseline, 1 part rouge, 1 part tripoli, and for each pound of the mixture add one-quarter ounce of powdered oxalic acid. This mixture applied briskly with a soft cloth will give fine results. The cleaning mixture may be cleaned off with another dry cloth, with a little whiting. The following will do well for cleaning finished brass:

Mix 1 oz. oxalic acid,  $\frac{1}{2}$  oz. gum arabic and 6 oz. rottenstone, with 1 oz. of sweet oil, and add enough water to make a paste. We believe this will give correspondent the information desired.

### WHAT IS A BY-PASS?

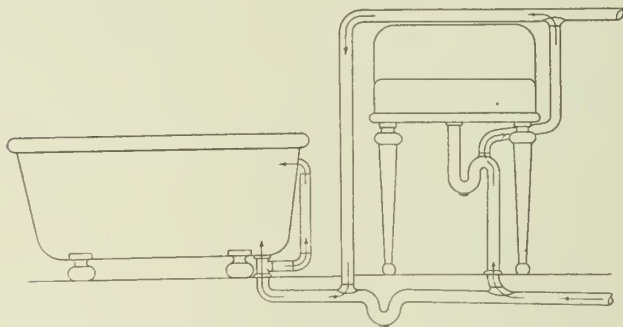
Editor Domestic Engineering"—I am interested to know just what is meant in plumbing by a by-pass, and what the results of by-passes are.

Grand Rapids, Mich.

A. B.

Perhaps we can give "A. B." a clearer idea of the by-pass and the results that it produces, by means of an illustration.

In the illustration which we give, "A. B." will notice that the vent is taken from the wrong side of the trap. The vent, of course, should be connected to the sewer side of the trap, and not to the house side. Whenever a vent is thus wrongly connected, a by-pass is produced, through which the foul air from the drainage system and sewer may pass directly into the house. The arrow heads will show the path taken, through the lavatory waste



Sketch Showing How a By-Pass Is Formed.

and vent, into and down the bath tub vent, thence into the bath waste and out into the room through the bath connection and overflow of the tub.

Whenever the sewer air has such a passage into the house, a by-pass is formed.

### TWO SIPHON PROBLEMS.

Editor "Domestic Engineering"—Please answer these two question for me:

1. How does a siphon work?
2. What is the difference between an ordinary siphon and a siphon that acts regularly at intervals?

Los Angeles, Cal.

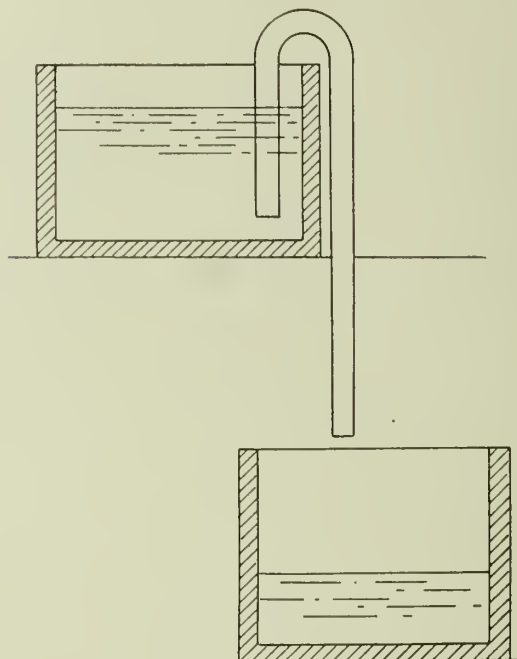
Beginner.

We will try to explain the action of the siphon with the help of the simple illustration which we show.

This device consists primarily of a bent tube, one arm of which must be considerably longer than the other. The siphon is used for transferring liquids from a high point

to lower point, although this action is not by gravity. The siphon is able to raise water over an elevation between the source of supply and the point of delivery, this distance being something over 33 ft. theoretically, but in practice often not more than 25 ft.

In order to start the siphon, the air in the long arm must be exhausted. As soon as this vacuum is formed,



Sketch Showing How a Siphon Works.

atmospheric pressure exerted on the surface of the liquid will force the liquid up through the short arm, which dips into it, and into the long arm, through which it is conveyed to the point of delivery by gravity. This action will continue until the lower end of the short arm is out of water, and naturally the water will drain down to that point.

In our illustration the siphon tube is shown, having its two arms of unequal length. As the water continues to fall out of the long arm, it continues to produce a vacuum, but if the two arms were of equal length, the liquid would have an equal tendency to fall by gravity, in which case there could be no force pulling the liquid over into the long arm.

The exhausting of air in the long arm is accomplished in most cases by filling it with water in one way or another. Many methods are used in doing this, shown, for instance, in the action of the common goose neck flush valve, in the siphon water closet, etc.

The action of the siphon may be broken by admitting air to the crown of the siphon. That, by the way, is the purpose of the venting system—to bring in air to the crowns of the traps.

Without doubt, "Beginner's" second question refers to the intermittent siphon. The principle of the intermittent siphon is exactly the same as above, only the supply entering the reservoir is constant, and not so great but that it can be drained by the siphon down to the bottom of the short arm. As we know, the siphon will then stop. The constant supply, however, will in time again fill the reservoir until the water rises high enough to fall over the crown of the siphon, into the long arm, and again set it in operation. It will then drain until it breaks, and so continue intermittently as long as the supply continues.

# Is the Motor Wagon an Asset?

## Officers of Supply Houses and Master Plumbers Discuss the Merits of the Horseless Vehicle to the Trade

We live in an age of progress, of swift development, of rapid evolution, of bewildering transformation. This twentieth century of ours is a mechanical age. Whoever thinks that the elimination of hand labor and brute effort will not continue year by year is a much mistaken man and an enemy to the inventive progressiveness of the day.

In the realm of business and industry it is generally admitted that one of the inventions of modern times, that has come to be a mighty factor in the economics of trade, is the motor wagon. Every argument for efficient delivery service favors the motor as opposed to the horse. The demonstration period in proving the advantage of the power wagon is passing, and it is simply a question of what truck or wagon to buy.

Eventually every business of any worthy size will adopt motor delivery and increase its net profits thereby. But the real problem—efficient operation—remains to be solved by each owner, as the conditions of his delivery demand.

In the plumbing and heating line, the value of the power wagon is praised by the large majority of its representative men. Speed, capacity and distance are the three vital things the auto-wagon offers the growing supply house or the busy master plumber. And it is these things on which economy is based.

If the head of a business of any kind is now using horses either owned or hired, he will need to find out whether or not he can use to advantage these power vehicles in his work. Will they save money? And will they increase his business? If they will do either, it is time to consider making a change. Horses command a good market price today, and used wagons can be sold at reasonable reductions from cost, but in two or three years, when the movement to convert horse-equipment into motor wagons has got into full swing, it may be found difficult to realize on horse and wagons in large cities, and the cost of shipping them to other places to sell will be hardly worth while.

"It is not necessary to experiment with motor trucks or delivery wagons at this late date in order to find out their usefulness," says one of the executive men at the National Plumbing and Heating Supply Company of Chicago. "We run two auto-wagons with a capacity of three tons. They consume five to seven gallons of gasoline a day. And some days it may take eight gallons, all according to the number of miles traveled per day. We usually run these wagons about fifty miles a day, and some days sixty miles. These vehicles are a fine thing for rush orders, and we now find that we could not do without them."

Another Chicago jobber of heavy hardware and plumbing materials figures that his five three-ton trucks are saving more than \$10,000 a year. Their daily expense is \$9.74 each, including the wages of the driver and helper. They are doing the work of twelve double teams, each of which likewise required a driver and helper and cost \$7 a day to maintain. The motors themselves, according to this jobber, would show a higher comparative efficiency if they were not used on short hauls to and from freight houses where the mileage drops to twenty or twenty-five miles a day. The short haul, which is the most common foe of motor efficiency, has, however, been improved upon

by hurrying loading and unloading, for the wagons consume just as much gasoline on a slow run in the city or while standing still, as they do when running at high speed out of town.

Therefore it is held by some that it costs more money to operate a power wagon in the crowded streets of a city, than it does the horse wagon. Discussing this point C. V. Kellogg of the Kellogg-Mackay Co., Chicago, says that it costs nearly three times the amount that a horse costs, but he at once qualifies this statement by declaring that in far out-of-town deliveries the auto-wagon is more economical in expense than the horse vehicle. He says

"For prompt out-of-town delivery the power wagon is the logical thing. It makes for both cheapness and speed. We have three trucks of commodious size, but we use them only for suburban hauling. It costs about \$18 a day to operate them, and we can't afford to be wasting time and money in using them for city work—it would be rather expensive for us to keep our trucks waiting around at railroad depots. So you see, we use teams only for the short hauls in the city."

One big manufacturer of plumbing goods with offices in various parts of the United States instituted an interesting system of accounting in his transportation department before he had inaugurated the use of auto-trucks in his business. To this account he charges every item of expense due to the horse and wagon service, about as follows:

Rental of stable, or interest on investment in ground and stable.

Lighting, water, insurance.

Interest on investment in horses and wagons.

Depreciation of horses and wagons.

Hay, grain, straw, etc.

Wages of superintendent, stablemen, drivers, and helpers.

Blacksmithing, repairs and repainting, new harness.

Veterinary services.

Removal of stable refuse.

Miscellaneous not included above.

After he displaced the horse service with power service he opened a new system of expense accounting as a basis for comparison, and he found in six months time that the cost of maintaining power trucks was thirty per cent less than the cost of operating the horse trucks.

Charles A. Dreier, the recently elected president of the Chicago Master Plumbers' Association, uses a runabout wagon in carrying plumbing materials to and fro. He has found it of incalculable advantage to him as a master plumber.

"There is absolutely no question about its value and advantage," says Dreier. "I really could not dispense with it at this stage of the game in my business. I fully believe that there are over a hundred master plumbers in Chicago who are using either runabouts, or large power wagons. The serviceableness and convenience of these vehicles are clearly apparent."

The firm of Thomas Conlin, plumbing and heating, has used the gasoline truck for some years, and is satisfied with its general efficiency.

"We have a little trouble with our power wagons at



times," it was said at the office of the company. "But we must expect that once in a while. You experience trouble with horse and wagons often enough. But at any rate, the repair question does not amount to much anyway, for when you consider the speed and ready convenience of the auto wagon, its promptness in delivery, you are easily ready to forgive it for occasional sins of omission."

At the Chicago office of Weil Brothers, the plumbing supply house, it was said that the firm had six auto-trucks in commission. "Are they doing O. K. work?" one of the officers of the company was asked. "Well, I should certainly say so," was the quick response. "The firm wouldn't have bought them if they weren't capable of doing O. K. work in every particular. Yes, we're very well satisfied with our trucks. For speed, comparative cheapness and hauling capacity, they fill the bill very nicely. We can put on a much bigger load on one of these gasoline trucks than we ever dreamed of doing with the horse truck."

One plumbing supply man meets the argument that the power wagon to be economical, must be kept moving. He points out that there is another side to this matter. He says that when a truck is standing still it is not wearing out its tires nor is it receiving any jars that might occasion the need of repairs. And also while remaining stationary at some railway depot it is not eating any feed like a horse. It is, of course, on the other hand consuming gasoline, but the expense of this consumption is equalized by the fact that it is not in motion and subject to tire wear and heavy jars. This is a point that must be taken into consideration, he contends in studying the comparative cheapness of the horse service and the auto-truck service. This is an obvious fact and should be put on the credit side of the account in figuring the relative cost of the old and new way of delivery in modern business life.

As between the gasoline-truck and the electric vehicle choice ought to favor that type best suited to a given service. Just as there are steam locomotives and electric engines, so there probably will be gasoline and electric power wagons for many years to come. Both types are used by the plumbing trade, the gasoline being on the whole more widely used and more in favor. Power wagons are now conceded to be an asset to any line of business. They have one great quality—speed, and as this quality is the big motto of American industrial life, it is surely worthy of prompt consideration to assure an efficiently managed haulage or delivery service.

#### MONTANA MASTER PLUMBERS CONVENE AT HELENA.

The Montana Master Plumbers' Association, which numbers some sixty-eight members, held a very profitable meeting at Helena on January 16 and 17. About one-third of the membership was present throughout the meetings.

The principal work of the convention was to ratify the proposed new plumbing law, on which much time and thought has been spent. This law is now before the legislature for action, and will no doubt pass. Among its provisions is one for the appointment of boards of examiners in incorporated towns and cities of more than 3,000 inhabitants in the state. Every plumber, whether master or journeyman, must pass the examination and be provided with a license. The board of examiners is to consist of one master plumber, one journeyman plumber and the health officer of such town or city, two members of the board to be practical plumbers well versed in mod-

ern sanitary plumbing, sanitation and sewerage. The members of the board are to serve three years. In cities having a plumbing inspector, such inspector is to be ex-officio member of the board. The bill also provides for the revoking of licenses of plumbers for incompetency and provides a penalty for violations, punishable by fines of not less than \$10, nor more than \$100 for each offense.

The sessions of the convention were held in the Trades and Labor Assembly hall in the Granite Block. On the evening of January 16 the master plumbers, ladies and guests sat down to a sumptuous banquet in the rooms of the Commercial Club. Everyone had a good time and toasts, jokes and music enlivened the evening.

The election of officers resulted as follows: President, Walter Arnold, Butte; vice-president, Robert Stocking, Helena; secretary-treasurer, John Campbell, Butte; national state vice-president, J. Hasley, Anaconda.

Among the plumbers present were: Adams Plumbing & Heating Co., Helena; Arnold Plumbing Co., Butte; Ed Bisbee, Lewistown; D. H. Rudd, Bozeman; J. B. Copps, Butte; John Campbell, Butte; R. D. Forbes, Butte; J. M. Grady, Missoula, secretary-treasurer; J. W. Kennedy, president; M. J. Hasley, Anaconda; Charles King, Helena; J. W. Kelleen, Butte; M. J. Moran, Hamilton; A. F. McCune, Belgrade; T. Luban; Dillon; John Sturrock, Helena; R. D. Stocking, Helena; John Harriss, Great Falls; John Gillan, Helena; H. T. Hansen, Butte.

#### PUT AN "AD" IN THE PAPER.

By Russell E. Smith.

If your business doesn't "go," and the sales are mighty low,

And things begin to look a trifle bad;  
When the things that looked "immense" now resemble  
"thirty cents,"

Just try the "stunt" of putting in an "ad;"  
You will find that it will pay, you can see it every day—  
And you'll admit it was the proper caper.

So get a pad and chalk, work out a line of talk,  
And put an advertisement in the paper.

Put it to 'em good and hard, whether selling gems or  
lard,

And try to hit 'em plumb between the eyes;  
Make your "copy" good and strong and you'll see 'fore  
very long

That it really pays for you to advertise.  
Play our main points up in style—then hustle for a  
while—

And you'll find this talk is more than idle vapor.  
The orders will flow in and you'll always wear a grin  
If you put your advertisement in the paper.

Successful men today will indorse all that I say  
"That much is truth and all the rest is lies;"  
You will not sell much goods and you'd best take to  
the woods,

Unless you hurry up and advertise;  
It simply can't be done and the race will soon be run—  
Whether you be banker, cook or draper—  
Till you find out what it means to dig down in your  
jeans

And put an advertisement in the paper.

—From Brains.

The Peterson Plumbing Co., of Exeter, Cal., has sold out to C. E. Campbell and George Manhart, of Porterville, Cal.

# Meeting of Heating and Ventilating Engineers

Nineteenth Annual Meeting of the American Society  
Was Held Last Week at New York City, N. Y.

THE American Society of Heating and Ventilating Engineers held its nineteenth annual meeting in the Engineering Societies' Building, 29 West 39th Street, New York, Tuesday, Wednesday and Thursday, January 21, 22 and 23.

## TUESDAY AFTERNOON SESSION.

The Tuesday afternoon session was called to order by John F. Hale, vice-president, in the absence of President John R. Allen, who is still in Turkey.

President Hale made a short address and then read the address of President John R. Allen, "Developments and Present Problems in Heating and Ventilation."

### The President's Report.

No branch of engineering science is more concerned with human health and comfort than heating and ventilation. Twenty years ago heating was only a mechanic's art, and the design of the heating plant was left to the plumber and the steamfitter. Gradually a demand arose for more elaborate systems of heating, the problem grew too complicated for the artisan, and the design of heating systems became a special branch of mechanical engineering. With the growth of our cities, and the accompanying increase in density of population, there was added to the problem of heating that of ventilation, a very vital one considered from the standpoint of human health. In the early history of heating and ventilation the engineer was primarily concerned with designing a plant which could be satisfactorily operated. To-day this difficulty has been overcome, and the field for development now lies in improving the construction of the plant, so as to attain greater economy in operation and more comfort and health for the users. At the same time in striving for these conditions the artistic treatment of the plant must not be lost sight of. The United States has done more in the application and development of heating and ventilating science than any other country in the world, but there is still much to do, even in the elementary development of this science.

The first need in the science of heating was exact data from which laws could be developed. The steamfitter developed certain "rules of thumb," based upon experience, excellent as far as they went, but not fundamental enough to permit of extensive application. When the engineer took up the problem his first efforts were directed to obtaining exact data, the easiest data to obtain and the most necessary being the heat losses from the various forms of radiation. These losses have now been obtained by different experimenters for all ordinary forms of radiation, both direct and indirect. It is possible with the data available to determine, within a small percentage of error, the exact amount of heat which will be given off by the various forms of radiators under different conditions and the laws governing the loss of heat from radiation under ordinary conditions are well understood.

With the introduction of the fan system new problems were added which rendered necessary the obtaining of more data, and the development of additional laws. Various experimenters have developed laws for the heat loss from fan radiation and, while no particular law is accepted at the present time, nevertheless the results which may

be expected from fan radiation can be predicted within a reasonable degree of accuracy. There is yet work to be done in this field, but we may soon expect to have laws developed which will be generally accepted by engineers. Much of these useful data have been obtained by the manufacturers, who deserve every credit for the valuable and accurate information which they are now able to give to their clients. The American manufacturer has been quick to see the advantage of giving this information to the engineering profession. These data have been of great assistance to the engineer in intelligently designing his plant so as to use properly the apparatus produced by the manufacturer. While twenty years ago very few manufacturers actually knew what their apparatus would do, the progressive manufacturing concerns of today maintain complete and well-equipped experimental laboratories, and are prepared to give scientifically accurate data in regard to the apparatus which they produce. In no other country in the world have manufacturers been so liberal in publishing data in regard to their apparatus, and the wisdom of this policy commends itself to every liberal-minded engineer. But what about the more fundamental propositions, in which the manufacturer is not concerned, and which the scientist has not yet investigated?

In the problem of designing a heating system there are fundamental problems which do not concern the manufacturer and which require elaborate and costly apparatus in order to obtain accurate results. This is particularly true when we endeavor to determine the heat transmission and loss from the various forms of building construction and the effect of the heat absorbed and given off by the building structures. The most accurate information in regard to the heat loss through building material is that obtained by German experimenters, the results of which have been translated into English by a member of our own Society. These experiments, however, were made with building constructions quite distinct from our own, and under different climatic conditions. I do not know of any extensive experiments having been made in this country to determine the heat losses in various forms of building construction used here. Such data are particularly desirable for the newer forms of building construction, such as hollow tile, hollow cement bricks, reinforced concrete and vitrified brick. Our modern office buildings present many new problems in heat losses which have not been investigated, and the reason why these investigations have not been made has not been from lack of interest or of desire on the part of the experimenter to obtain these data, but from the difficulty and expense involved in making the necessary experiments. Such experiments, which can be completely carried out only by the government, or by a bequest from some fund provided for the purpose, are of the greatest importance to the whole community, as they concern the well-being of each individual.

Another consideration which has not been scientifically studied is the question of the proper temperature at which the air in a room should be maintained. In the United States it is customary to assume that a temperature from 68 to 70 deg. Fahr. is most suitable for rooms in which



persons are not actively engaged. In Germany for similar rooms a temperature from 65 to 68 deg. Fahr. would be regarded as sufficient, while in England a room is considered properly heated when the temperature is 55 to 60 deg. Fahr. In one of the great English universities, classes are often held in rooms where the temperature does not exceed 55 deg. Fahr., but, under the same conditions in the United States, the class would be at once dismissed. What is the reason for this difference of temperature required by different nationalities? Is it due to personal peculiarity, custom, or climatic conditions? Possibly the proper temperature in one locality may be different from that of another. The outside temperature may have much to do with the temperature required indoors, as it is a well-known fact that people living in countries where the temperature is extremely low require higher indoor temperature. Certainly these points are worthy of scientific investigation, as our only guide at the present time is custom, and what few data we have are fragmentary and not at all conclusive.

Many rules have been proposed for determining the proper amount of radiation to be placed in a room, and practically all of these rules are based on the assumption that the heat so applied to a room shall equal the heat lost from the walls and the windows. There are other conditions entering into the determination of the proper amount of radiation that should be placed in a room which are often allowed for by adding on percentages, but the percentages allowed in most cases are not based on any scientific hypothesis. For examples, the intermittent heating of a room which affect the amount of heating surface to be placed in the room and the amount added will depend upon how quickly it is desired to heat the room after it has been cooled.

Where buildings are intermittently heated or are of heavy construction, far more heat is required to warm the walls of the buildings in a reasonable length of time than to take care of the heat transmission. Again, most of the rules used in determining the amount of radiation to heat a given sized room assume that the room must be heated at a temperature corresponding to the lowest temperature which exists outdoors for any length of time. Theoretically such a proposition is absurd, as obviously if just enough heat was supplied to provide for the heat loss from the room and the conditions all remained constant, it would require an infinite length of time to warm the room. Fortunately the heating engineer figures the radiation to heat the building at a much lower temperature than the average; and during the warm days heat is stored in the walls from the excess given off by the heating plant and absorbed from the sun. During the very cold days this heat is given up and reduces the heat loss from the building, serving to correct the errors in the engineer's calculations. In many of the great cathedrals of Europe no heating system is provided, and these buildings are never uncomfortable, owing to the heat stored in the building structure during the summer months, and returned to the air during the colder months. A good example of the use of the heat stored in a building comes from Germany.

Recently a state dinner was to be given in a castle which had no heating system. The engineers were asked to heat the building for the dinner, but it was specified that no portion of the heating system was to be visible in the room. The result was accomplished by means of stored heat. For a number of days previous to the dinner, the floor of the dining-room was covered with steam pipes and these pipes were kept hot by means of a tem-

porary boiler. The day before the dinner all the pipes were removed and the stored heat in the walls maintained the room in a perfectly comfortable condition for a number of days, although the outside temperature was well below the freezing point. None of our rules for heating take these conditions into consideration. It is quite possible that it would be better in buildings of heavy construction to base the necessary amount of heat to be supplied not upon the minimum external temperature, but rather upon the average external temperature for a period of time. Most heating engineers allow a large margin of safety which covers their ignorance of the conditions entering into the problem.

There is still much need for the development of a more comprehensive method of determining the amount of radiation necessary to heat a given building. The formulæ at present used do not include many factors which enter into the problem, and, in order to check existing rules, it will be necessary to have available the data obtained from actual installations in daily operation. The lack of information in regard to the actual operation in heating plants is very noticeable. A heating engineer may design many plants and, if there are no complaints, he assumes that the plants are working properly; but very few of us have investigated our own heating installations so as to find out whether the results obtained were in accordance with the computations originally made. Here, again, the obtaining of data and working up such a test involves much labor and expense, and such a test to be of any value must be carried on over a long period of time, while conditions and results are closely observed. In the proceedings of this Society there are descriptions of heating plants which have been installed, but there are very few data in regard to the actual operation of such plants. It would be very interesting to know the heat loss per square foot of external surface for different conditions of outside temperature and wind, the heat loss from radiation for a long period of time, the effect of heat storage in the building walls during rapid changes of temperature, and many other details which might be obtained from such a test properly carried out. The compilation of such tests would be of great assistance in formulating some more logical rules for estimating heating surfaces.

Ventilation has been a natural outgrowth from the development of heating; as buildings have been made more and more impervious to the passage of air in order to prevent loss of heat, there has arisen the need of supplying fresh air. Even less is known scientifically about ventilation than is known about heating. The engineer assumes in the beginning of the computation that certain changes of air are necessary, depending upon the use for which the room is intended and the number of persons in the room. What fundamental scientific reasons are there for the changes of air ordinarily assumed? Dr. Leonard Hill, in the address before the Physiological Section of the Royal Society of Arts, describes a series of experiments which go to show that chemical purity of the air is of very little importance. In the worst ventilated rooms the percentage of  $\text{CO}_2$  does not exceed by more than one or two per cent the normal  $\text{CO}_2$  of the air, yet at each breath we rebreathe much of the air just given out, and only about one-third of the air is expelled from the lungs at any one time. No man breathes pure air into his lungs, even when out of doors, and a change of one or two per cent in the  $\text{CO}_2$  of the air breathed would make no appreciable difference in the amount of  $\text{CO}_2$  and other impurities in the lungs. The air of a room is usually assumed to be unfit for breathing when it has a bad odor,

but an offensive odor does not necessarily make the air bad. Dr. Hill performed the following experiment:

A small experimental chamber, built of wood and fitted with a glass window for the purpose of observation, was made absolutely air tight. On one side of the chamber were placed two electric heaters and a tin vessel of water, by which the air could be saturated with water vapor. On the other side was placed a large radiator, through which cold water could be circulated so as to cool the air. The room was also provided with electric fans, so that the air in the chamber could be thoroughly agitated. In making the experiments seven or eight students were confined in this small room for about one-half hour at a time. During the experiments the  $\text{CO}_2$  reached 4 per cent above the normal, and the oxygen fell to 16 per cent; the wet bulb thermometer rose to  $85^\circ$ , and the dry bulb to  $87^\circ$ . Under these conditions the students began to lose their spirits and their faces became flushed, but when the fans were started and the air in the room agitated, their discomfort ceased. The improvement in their feelings was doubtless due to the cooling of the skin, consequent upon the change of air in the clothing near the skin. Persons outside the box breathed the chamber air by means of a tube, and felt no discomfort; on the other hand, if the persons inside breathed air from the outside they gained very little relief, although by cooling the air in the box, the discomfort was relieved very much. The author concludes that the discomfort experienced in crowded rooms is not due to the increase in impurities, but to the conditions in temperature, the lack of movement in the air, and the diminished heat lost from the body. These experiments show that our knowledge of the effects of ventilation is really very limited, and that, after all, the  $\text{CO}_2$  test for the condition of air in a room may be of little actual value.

There is a great field for experimental work along these lines, but to carry out such experiments they must be done jointly by the heating and ventilating engineer and the physiologist. There are many things that we should know, such as: What constitutes pure air? What are the safe limits of purity? How may these be determined? At what temperature should air be used for ventilation? What effect does the rapid circulating of the air have on ventilation?—and many others. These questions are largely physiological, but, at the same time, it will be necessary in carrying out such experiments, to have the engineer produce the condition of the experiment and the physiologist to record the results. It is even possible that our Society might invite a joint consideration of such topics with similar societies interested in physiology.

The heating and ventilating system may have much to do with the spread of disease by bringing germs from the outside air into the room; indeed, what better means for carrying germs can be provided than the central ventilating system for distributing the germs from the central room through the whole building? A paper read before our own Society shows that the higher the temperature of the air used in ventilation, and the higher the temperature of the radiating surface, the greater the amount of dust carried with the air; and with this dust are carried the germs of disease. This fact alone may account for the complaint that is sometimes made by hospital surgeons that patients in rooms ventilated by air which has passed over steam coils do not improve as rapidly as patients in rooms ventilated with unheated air. This is another fundamental question in ventilation which is very important and needs a thorough investigation to enable the heating engineer to design a plant which will best suit the needs of the persons in the building to be ventilated.

In the design of the heating plant for buildings of an artistic character, the heating and ventilating engineer should make his installation conform to the artistic treatment of the building. So often we see an artistic room, with artistic hangings, heated with a radiator, the design of which is the one discordant note in the room. Manufacturers of radiators and heating equipment are just beginning to realize this, and are designing simpler and more artistic patterns, for, after all, there is no reason why the design of the radiator should not be as much a part of the interior design of the room as the design of the hardware and the electric lighting fittings. The designers of hardware have produced fittings appropriate for all the principal styles of architecture, and these have been designed not by engineers, but by artists. There is still room for improvement in our radiator designs, so that they, too, may conform to the various styles of building architecture. The ancient Greeks and Romans in their buildings often entirely concealed the heating system by circulating the hot water or vapor underneath the floors or behind marble slabs.

This address has endeavored to point out to the members of our Society some of the fundamental facts that are usually assumed as settled; but about which, in reality, we know very little, and in regard to which we need much additional information. In regard to the obtaining of more experimental facts upon which to base our calculations the following suggestions are made:

There are many universities and private laboratories that are investigating these problems, but this work of investigation is more or less incomplete, and the investigations are not co-related so as to obtain the best possible results. Much time could be saved if each of these installations could take up the lines of experiment which they are best able to carry out and make these experiments in accordance with some prearranged plan. This Society could then serve as a means through which the lines of experiment might be suggested to the laboratories, and they could also serve to collect the data obtained and have them classified and compiled. There would, no doubt, be many difficulties in bringing about a combination of laboratories, but a closer relation between this Society and the various laboratories would result in much profit to all interested in these problems. If such a closer affiliation be made, it is possible that, in course of time, the combination of laboratories suggested might be brought about.

This Society should be intimately associated with the members of the medical profession and physiologists who are investigating the problems of sanitation and the public health. The members of our own Society should endeavor to be familiar with the most recent experiments along these lines. As has been suggested, the joint experiments, conducted by the trained physiological investigator and the engineer, could do much to clear up the present uncertainties, particularly in ventilation. Any arrangement by which an interchange of ideas between the physiologist and the engineer may be brought about would be a first step to obtaining more exact information along these lines.

We have other problems, however, which require very elaborate apparatus and ample means to investigate thoroughly. Such investigations are too extensive to be taken up by the laboratories of our manufacturers and universities. Such problems as the heat losses from buildings, the effect of heat stored in the building structure, and similar problems must be investigated by men competent to conduct such experiments and who must have ample time, plenty of assistance, and adequate financial



means. Such experiments are beyond the financial resources of universities, and are not vital enough to the interests of our manufacturers to warrant the expense involved in conducting them. The funds necessary to carry on such experiments should be provided by the government or by the trustees of large bequests which have been given for the purpose of investigating subjects which would be of benefit to the whole community. The subjects I have mentioned are directly concerned with the health and comfort of every community in the United States, where heating is required. It would be perfectly proper for our Society to endeavor to interest persons or institutions of large means in establishing an experimental laboratory in which matters pertaining to heating and ventilation and allied subjects could be investigated.

In our Society let us take a broad view of the field of heating and ventilation, and, if possible, endeavor to solve the fundamental problems and develop the basic laws upon which our calculations may be founded, having in mind each year to take one more step in advancing heating and ventilation from a mechanic's art to a science.

President Hale said he had received a letter from Professor Allen stating that this paper had been prepared during the bombardment of Constantinople and Professor Allen could hear the roar of the Bulgarian guns.

Secretary Macon then made the following report:

#### **Report of the Secretary.**

The most apparent activities of the Society headquarters this year have been the production of two volumes of proceedings in one year; the issuance of a booklet intended to assist in the matter of campaigning for new members; and the supply to members of a voluminous amount of heating and ventilating literature. As regards the considerable number, size and character of the contributions to the two meetings of 1912, the secretary feels that the Society is greatly indebted to the authors, many of whom gave results involving considerable labor, and it is felt that the merits of these contributions will be more apparent when the volume for 1912 is issued. The general editing for both the last annual and summer meeting has been completed, and it remains only to prepare the copy for the compositor and to arrange for the additional illustrations before the matter is sent to press. The secretary himself feels highly grateful to the many who assisted in the remarkable triumphs of the two meetings.

The financial showing for the last year is herewith submitted:

The cash on hand at January 25, 1912, amounted to \$1,397.41 and the total receipts from all sources for the year was \$4,717.40. The disbursements amounted to \$5,073.19, leaving a balance on hand at January 21, 1913, of \$1,041.62.

The lateness of the receipt of papers for the present meeting has interfered with the cherished hope of the secretary that all papers might be sent considerably in advance of the meeting not alone to members, but to those who might be specially invited to take part in the discussion because of their special knowledge on the subject. It is still worth while to emphasize, however, that the papers after being sent to the members can be discussed in writing, while the author will have his prerogative of closing the discussion before the information is arranged for the annual volume of proceedings.

The Secretary then read the

#### **Report of the Board of Governors.**

The Board of Governors makes the following report of the activities of the Society since the organization of the

Board, January 24, 1912, immediately following the last annual meeting.

The board has maintained headquarters in the Engineering Societies Building and the office of the secretary has been used to a greater extent than before by the individual member and by committees for meeting purposes. In this connection, the board feels that a special recognition should be taken of the petition offered to the previous board of governors early in 1911 by 12 members offering to raise the money necessary to maintain the Society's headquarters in the Engineering Societies Building, as it then seemed that some difficulties might arise in providing for the extra amount of money which such a departure might entail. The experience of the last two years has abundantly proved the wisdom of the choice and of the Society's ability to maintain its headquarters in a building so admirably adapted to its use and so specially identified with the engineering profession in its largest aspect. It has not yet, nor is it likely that the Society will ever ask for this proffer of funds and it is here officially declared that the petitioners are relieved of their self-imposed obligation and that this special record is to be taken as a token of appreciation on the part of the board.

Among the notable events of the year is to be mentioned the summer meeting of 1912, held in Detroit, Mich., July 11 and 12. The meeting was remarkable for the volume and character of the technical contributions, and for the admirable entertainment arrangements which had been made by the Detroit members.

New Chapters.—The board had the pleasure of approving an application from and approving the by-laws of the Massachusetts Chapter, centered in Boston, and is glad to take cognizance of the suggested formation of a chapter with headquarters in Philadelphia. The board feels that it is altogether in order to express a word of encouragement toward the establishment of chapters, which have proved advantageous to a local group through opportunity to congregate periodically, and to exchange information more or less informally, a practice which has already proved of permanent benefit to the progress of the society itself.

Interest Manifested.—Some of the side lights indicating a degree of interest in the society are obtained, for example, through the attendance at the summer meeting, and the percentage of members voting on mail ballots. At the Detroit meeting about nine per cent of the membership was present, and the guests numbered two for every member, a ratio calculated also to indicate a growing interest of non-members toward affiliation. As regards the vote on the proposed changes to the by-laws, no less than 34, or three per cent of the voting strength was polled, and the by-laws were adopted by a large majority over the necessary two-thirds.

The financial reports are dealt with in the reports of the secretary and treasurer. While the outgo for each member is still considerably greater than the amount of dues from the member, and the society is still maintaining solvency through the use of initiation fees and dues, the per capita cost has been reduced, in spite of a large increase in the number of pages of technical information already supplied to the members this year, as compared with former years. It is still clear that a decided increase in membership is needed if the same scale of recent operations is to be continued without impairing the financial status. It might here be stated, as a matter of general record, that the auditing committee, appointed at the beginning of this last year to audit the books of the secretary and treasurer, found them correct. The reports of

both the secretary and the board of governors were mailed to members early in 1912.

**Representation at Other Meetings.**—The board held eight meetings during the year, and its deliberations in detail will be found in the Society records. The Society was represented in other meetings and in committee work with other societies as follows: Nelson S. Thompson, at the International Congress of Hygiene and Demography, Washington, D. C., September 23-28; D. D. Kimball was appointed chairman of the section on ventilation in the Department of Industrial Hygiene and Sanitation of the American Museum of Safety, New York; S. R. Lewis, J. H. Davis, N. L. Patterson, Theodore Weinshank and J. G. Hayes were appointed to represent the Society at the National Conservation Congress, Indianapolis, Ind., October 1-4; James D. Hoffman represented the Society at the International Congress for Testing Materials, New York, September 2-9; E. F. Capron, D. M. Quay, W. F. Devendorf, M. L. Foote and W. C. Green were appointed a committee to confer with the National District Heating Association.

**Acknowledgment of Gift Books.**—A notable gift was made to the Society by Dr. William Paul Gerhard, C. E. This present comprised 89 books and pamphlets on heating and ventilation in the English and German languages. These volumes have been installed in the Society's library, and it is desired that the Society in the annual meeting shall take special recognition of the bequest, which will undoubtedly be very highly appreciated, particularly as it affords the individual members an opportunity to consult books many of which are rare.

**Increase in Membership.**—The details of the changes in membership are shown in the accompanying summary. Two ballots were canvassed in the usual manner on June 4 and December 19. There were 27 candidates on the first ballot, of which number 1 failed of election; there were 27 candidates on the second ballot, of which number 2 failed of election. The reinstatements of the year amounted to 3, making a gross increase of 54. There was an absolute loss of 30, as shown in the accompanying table, making a net gain of 24.

The most trying character of loss is that which had to be recorded this year, namely, in the failure of two candidates to qualify for membership after continued forbearance on the part of the officers.

**Status of Membership.**—The membership of the Society at January 25, 1912, was 425, comprising 382 full members, 27 associate members, 13 junior members and 3 honorary members. There were 31 accessions to full membership by election, 2 by reinstatement and 1 by advancement from junior grade during the year, and 8 losses by resignation, 12 by non-payment of dues, 1 by failure to qualify and 5 by death, a net increase of 8 members.

The associate membership was increased by election of 14 and reinstatement of 1, and there were 4 losses by resignation, non-payment of dues and failure to qualify, a net gain of 11. There were 6 accessions by election to junior membership and 1 loss by advancement to full membership, or a net increase of 5, making the total membership of the Society at January 21, 1913, 449, showing a total increase for the year of 24.

The society suffered the loss of four members by death this year, and one other, whose demise was reported too late to be included in last year's statements. The list includes a past president and also a charter member. The officers have already taken the initial steps toward expressing sympathy toward the members of the families of the deceased, and it is here urged that in the volume

of proceedings for 1912 biographical sketches be incorporated, so that there may be a lasting record of the career and achievements of the departed members, who are as follows: Warren S. Johnson, Los Angeles, Cal., who joined the Society in 1906, and who died December 5, 1911; W. C. Bryant, who joined the Society in 1901, and who died April 6, 1912; Herbert A. Joslin, who joined the Society in 1896, and who died October 3; Andrew Harvey, a past president, who joined in 1896 and who died October 9, and Newell P. Andrus, a charter member, who died January 13, 1913.

Those who were honorably withdrawn from membership, because their resignations could be accepted, were Frank W. Foster, Boston, Mass.; Louis D. Collins, Geneva, N. Y.; J. G. Eadie, Bayonne, N. J.; J. J. Tait, San Francisco, Cal.; N. L. Danforth, Buffalo, N. Y.; A. T. Kellogg, Francitas, Texas; H. H. Ritter, New York City, and W. C. J. Doolittle, Utica, N. Y.

**Recommendations.**—Finally, the board desires to make a number of recommendations:

1. That the incoming council institute an investigation into the status of the present by-laws in relation to the membership corporation law of the State of New York.

2. That steps be taken to amend the by-laws, so that the report of the nominating committee shall be placed in the hands of the secretary 90 days in advance of the annual meeting so that plenty of time shall be given for publicity to the nominating committee's report, and the opportunity be made available for independent nominations prior to the time when the ballots should be presented to the membership, namely, 60 days, as stipulated in the by-laws.

3. That for its financial reports the business range from January to January, so that there can be plenty of time for the proper closure of books and preparation of reports, as well as an investigation of the accounts by the auditing committee prior to the annual meeting.

4. That an applicant for membership be not given the opportunity to state the grade of membership he desires to enter, so that the membership committee and the council may place the applicant where he belongs, and time may be saved in preparing the ballots for voting.

5. That the incoming council consult the desirability of establishing voucher system of checks for making the Society disbursements.

President Hale appointed the following gentlemen as tellers of election: F. K. Davis, New York; E. K. Munroe, Baltimore, Md., and U. G. Scollay, Brooklyn, N. Y.

President Hale appointed the following auditing committee: F. K. Chew, New York; W. S. Timmis, New York; J. H. Davis, Chicago.

Samuel R. Lewis read the report of the Illinois Chapter.

Secretary Graham then read the report of the New York Chapter.

Secretary Myrick read the report of the Massachusetts Chapter.

The Secretary read the "Report of the Committee on Legislation for Compulsory Ventilation."

This report was referred to the summer meeting.

W. M. Mackay reported for the Committee on Heating Guarantees.

Professor Kent proposed that the matter be referred to the committee and that a contract be prepared embodying the features as proposed by the committee and presented to the summer meeting.

L. C. Soulé read the report of the committee on Tests.

J. A. Donnelly made a report of a trip which was made by the New York and Massachusetts Chapters under the



auspices of the Committee on Tests to Springfield and Westfield, Mass., and New Haven, Conn.

Professor Harding then read the investigations made by him on air ducts, as a part of the Committee on Tests.

Upon motion of Samuel R. Lewis it was resolved that the Committee on Tests be appointed a central committee, and that sub-committees be appointed by each member as follows: The central committee to consist of five members, each of the members to have power to appoint two members for the purpose of making tests in different localities and to report to the central committee.

It was decided to publish in pamphlet form the reports of James A. Donnelly and Professor Harding, of the Committee on Tests, for distribution to members.

Secretary Macon read the report of the International Congress for Testing Materials.

Theodore Weinshank read the report of the National Conservation Congress.

The election of a nominating committee to nominate

Frank I. Cooper read a paper entitled "Improved Air Conditions in a Boston Residence."

The following topic was then discussed, "Efficiency of Air Washers in Recirculating Air."

Frank Irving Cooper read the report of the Committee on Schoolroom Ventilation.

This was supplemented by H. A. Whittem, who explained a number of charts referring to the report.

Frank Cooper made a motion that a vote of thanks be tendered Charles F. Eveleth for his report and charts.

The thanks of the society was also extended to the committee for its work.

The meeting then adjourned.

### WEDNESDAY MORNING SESSION.

The Wednesday morning session was opened by newly elected President John F. Hale at 10:45.

Frank L. Busey read a paper entitled "The Design of Indirect Heating Systems with Respect to Maximum



John F. Hale,  
The New President.



James A. Donnelly,  
The New Treasurer.



Frank T. Chapman,  
Two of the New Managers.



Theo. Weinshank,  
Two of the New Managers.

officers and managers for 1914 was then taken up. The following names were presented: E. K. Munroe, Baltimore, Md.; H. L. Williams, Pittsburg, Pa.; Homer Addams, New York; L. C. Soule, Chicago; H. J. Barron, New York; J. A. Davis, Chicago; W. G. Snow, Boston.

Howard H. Fielding, Denver, Colo.; Frank L. Busey, Buffalo, N. Y., and F. G. McCann, New York, were appointed as tellers of election.

The following nominating committee was elected: Homer Addams, New York; W. G. Snow, Boston; E. K. Munroe, Baltimore, and L. A. Soule, Chicago.

Upon motion of Secretary Macon it was resolved that the fiscal year begin January 1st instead of February 1st.

The meeting then adjourned.

### TUESDAY NIGHT SESSION.

The Tuesday night meeting was called to order by Acting President John F. Hale. President Hale announced the election of the following officers for the ensuing year: President, John F. Hale, Camden, N. J.; vice-presidents, E. F. Capron, Chicago; A. B. Franklin, Boston; treasurer, James A. Donnelly, New York; managers, Frank T. Chapman, New York; Ralph Collamore, Detroit; D. D. Kimball, New York; J. M. Stannard, Chicago, Theodore Weinshank, Indianapolis.

According to the constitution the two past presidents who last held office, Professor John R. Allen and R. P. Bolton, are also members of the council.

Clinton E. Beery read a paper entitled "Downward Ventilation in a Rockford, Ill., Schoolhouse."

Economy and Operation," by Frank L. Busey and Willis H. Carrier.

Dr. M. W. Franklin gave a talk on "Ozone and Its Applications."

Frank T. Chapman read the report of the Committee on Ventilation Standard for Motion Picture Show Places."

J. J. Blackmore moved that the report be submitted to the council and printed and sent to the members, with the privilege of voting "yes" or "no" on the subject, with any suggestions that the members may think of. Motion carried.

The meeting then adjourned.

### THURSDAY MORNING SESSION.

The Thursday morning session was opened by President Hale at 10:50.

C. A. Haslett opened the discussion on the subject of "Standard Practice of Measuring Air Velocities at Registers."

Upon motion of Samuel R. Lewis it was resolved that the chair appoint a committee of three to determine the manner of measuring air with anemometer in front of the register.

The president appointed the following committee: C. A. Haslett, J. I. Lyle and A. E. Hall, and instructed them to report at the afternoon session.

Frank K. Chew read a paper entitled "Analysis of a Combination Heating System."

The discussion of the report of the committee on Pro-

posed Standards for Ventilation Legislation for Motion Picture Theatres was then taken up.

The meeting then adjourned.

#### THURSDAY AFTERNOON SESSION.

The Thursday afternoon session was opened at 2:30 o'clock.

The secretary read a paper presented by August Beaurienne entitled "Steam Heating from the Receiver of the Compound Engine."

Dr. T. A. Starkey read a paper entitled "Experience with Humidity in a Residence."

The report of the Committee on Legislation for Compulsory Ventilation was then read.

C. A. Haslett read the report of the Committee on Proposed Standards for Measuring Air Velocities at Air Supply Openings by Means of Anemometers.

The newly elected officers were then installed and the meeting adjourned.

#### Entertainment.

The annual banquet of the society was held at the Martinique Hotel, New York, Wednesday evening at 7:30 o'clock, and it was a very enthusiastic set of diners who took their places to enjoy the good things prepared for them. During the dinner the guests were entertained by special talent consisting of Miss Leonore Hutchinson, soprano; Miss Aimee Hutchinson, contralto and violinist, and Joseph Holub, pianist.

President Hale acted as toastmaster and introduced the two speakers of the evening: Mrs. Florence Kelley, secretary, National Consumers' League, and the Honorable John Martin, member of the Board of Education, New York.

Special entertainment had been prepared for the visiting ladies during the business sessions of the society.

Wednesday morning a party was taken to visit the Metropolitan and Singer Towers and entertained at lunch at Schrafft's tea rooms on Fifth Avenue. In the afternoon a matinee party for the ladies was arranged.

A trip to Ellis Island was made on Thursday morning, after a short visit to the Aquarium in Battery Park. Upon the return of the party luncheon was served at the Waldorf-Astoria. Thursday afternoon had been set aside for an automobile ride up Fifth Avenue and Riverside Drive to Grant's tomb.

The entertainment features were concluded with a Hippodrome party Thursday evening.

#### Delegates and Guests in Attendance.

The official list shows that the following delegates and guests were in attendance:

New York City.—Homer Addams, A. S. Armagnac, Chas. Ashland, J. H. Bacon, H. H. Brooks, C. F. Chase, W. D. Clark, A. D. Campbell, G. E. England, H. J. Engle, W. N. Ennis, Alfred Engle, G. D. Farnham, F. R. W. Fischer, E. E. Fox, Paul H. Fabrian, J. B. Garfield, H. B. Gomers, W. F. Goodnow, J. F. Carney, F. I. Chapman, F. K. Chew, F. K. Davis, Mrs. F. K. Davis, J. A. Donnelly, Mrs. J. A. Donnelly, R. P. Bolton, J. I. Lyle, D. D. Kimball, Wm. J. Baldwin, Conway Kiewitz, Frank G. McCann, W. M. Mackay, J. F. Hamburg, Richard Hankin, D. A. Harding, R. B. Hunt, Wm. Hutton, W. R. Munro, F. M. Norton, J. F. Page, Geo. O'Hanlon, J. H. Parker, F. G. Purdy, Gustav Regnval, G. A. Robertson, D. H. Quackenboss, William Ritchie, Arthur Ritter, Douglas Sprague, T. H. Stevens, G. G. Schmidt, C. E. Scott, Mrs. C. E. Scott, C. A. Slocum, A. W. H. Spear, E. A. Scott, C. Teran, Dr. W. S. Thomas, James H. Merritt, G. L. Berger, Howard Newman, D. M. Myers, W. S. Dickinson, D. M. Quay, P. R. Moses, J. A. Darts, O. E. Willis, Frank Paulding, H. G. Issertell, E. Krauss, A. A. Kiewitz, Raines Kessler, Chas. Fuller, S. L. Guthorn, C. A. Miller, R. W. Weed, F. R. Heath, S. W. Gurnee, W. J. Dewitt, J. C. Faulkner, T. W. Conklin, M. R. Smith, Geo. A. Small, L. B. Sherman, Bernard Rowntree, Chas. G. Armstrong, W. H. Downs, E. E. Sprague, H. T. Owens, J. J. Blackmore, C. M. Staten, John S.

Hanlon, C. A. Bulkeley, Ralph C. Taggart, Thomas Barwick, William Lambert, W. G. LeCompte, C. C. Lincoln, W. W. Macon, W. J. Marshall, H. C. Mallory, F. J. Martin, T. E. Morford, W. C. W. Turno, W. S. Timmis, G. F. Travis, E. J. Treat, C. E. Warsop, Wm. R. Watlers, F. A. Wilson, Thomas Wilson, E. DeForest Winslow.

Albany, N. Y.—A. E. Hall.  
Amityville, L. I., N. Y.—G. V. Greey.  
Brooklyn, N. Y.—D. D. Briggs, Joseph Graham, G. G. Oakes, P. H. Seward, U. G. Scollay, B. Irwin, James H. McDowell.  
Buffalo, N. Y.—F. L. Busey, Mrs. F. L. Busey, Samuel Wright.  
Elmira, N. Y.—H. H. Brooks.  
Irvington-on-Hudson, N. Y.—W. P. Stockwell.  
Ossining, N. Y.—Robert Lemmey, Charles W. Frean.  
Poughkeepsie, N. Y.—P. C. Doherty.  
Port Chester, N. Y.—F. S. Moore.  
Queens, L. I., N. Y.—George Smith.  
Rochester, N. Y.—H. S. Welsh, Wm. F. Colbert.  
Schenectady, N. Y.—William C. Vrooman, D. M. W. Franklin.  
Woodhaven, L. I., N. Y.—G. A. Robertson.  
Butler, N. J.—E. H. Martin.  
Camden, N. J.—W. F. Belyen, T. Brown, W. G. R. Braemer, J. L. Fitts, C. E. Cunningham, E. K. Lanning, Warren Webster, E. K. Webster, H. Newman.  
Collingswood, N. J.—Max Miller.  
East Orange, N. J.—A. Gross.  
Hoboken, N. J.—C. W. Haensel.  
Jersey City, N. J.—Rudolph Ewald, W. H. Driscoll.  
Montclair, N. J.—William Kent, Mrs. F. Chapman.  
Newark, N. J.—T. B. Cryer, A. A. Kiel, P. J. Newkunelt.  
Palmyra, N. Y.—E. C. Hinkle, Mrs. E. C. Hinkle.  
Red Bank, N. J.—Arthur W. Kelly.  
Kingston, Pa.—C. E. Cunningham.  
Philadelphia, Pa.—H. C. Beatty, Mrs. W. R. Barnes, A. E. Edgar, G. A. Eagan, C. A. Haslett, A. W. Proctor, John S. Makin, A. S. Mappett, N. C. Schroeder, Wilsie F. Wolfe.  
Pittsburg, Pa.—H. F. Bailey, P. F. Maginn, J. E. McGinness, H. L. Williams.  
Scranton, Pa.—W. L. Hunter.  
Boston, Mass.—D. S. Boyden, C. G. Campbell, A. B. Franklin, Wm. McKenna, F. I. Cooper, Chas. Morrison, J. W. Wattles, J. W. Myrick, H. W. Whitten, W. G. Snow.  
Springfield, Mass.—G. Babbieck.  
Westfield, Mass.—W. L. Ransom.  
Bridgeport, Conn.—M. H. Ressler.  
Meriden, Conn.—C. N. Flagg, jr.  
Baltimore, Md.—E. K. Munroe.  
Washington, D. C.—Arthur C. Willard.  
Akron, Ohio.—A. G. Cripps.  
Cleveland, Ohio.—Frank Phegley.  
Indianapolis, Ind.—E. Schurmann, Theo. Weinshank.  
Chicago, Ill.—C. B. Clarke, E. F. Capron, Mrs. E. F. Capron, J. H. Davis, Mrs. J. H. Davis, S. R. Lewis, Ben Nelson, W. J. Price, Frank P. Keeney, L. C. Soule, A. E. Schad, J. M. Standard.  
Rockford, Ill.—C. E. Beerg.  
Detroit, Mich.—Ralph Collamore, W. F. McDonald.  
St. Louis, Mo.—J. T. Bradley, R. W. Smith.  
Milwaukee, Wis.—H. W. Ellis.  
Montreal, Canada.—Edward Darling.  
Toronto, Canada.—R. B. Mackinnon.

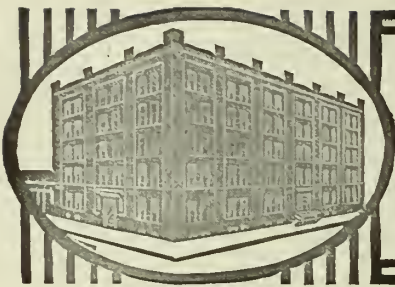
#### THE COUNCIL OF A. S. H. V. E. ORGANIZED.

Immediately after the annual meeting of the American Society of Heating and Ventilating Engineers, the council met for purposes of organization in the society's headquarters in the Engineering Societies Building, New York. Edwin A. Scott was appointed secretary to succeed W. W. Macon, whose term of office expired with the outgoing administration. Mr. Macon's professional duties have assumed such proportions that he found it impossible to continue further as secretary. At this meeting, the council decided by lot as prescribed by the constitution the terms of office for the vice-presidents and managers, as follows:

Vice-Presidents—Albert B. Franklin's term expires 1914; Edmund F. Capron's term expires 1915.

Managers—D. D. Kimball's term expires 1914; J. M. Standard's term expires 1914; W. W. Macon's term expires 1915; Ralph Collamore's term expires 1915; Frank T. Chapman's term expires 1916; Theodore Weinshank's term expires 1916.





## News of Interest Among the Wholesalers and Manufacturers



### CENTRAL SUPPLY ASSOCIATION'S MIDWINTER MEETING.

The midwinter meeting of the Central Supply Association will be held at Hotel Sherman, Chicago, on Wednesday, February 26, 1913, in accordance with the vote of the executive committee. On Tuesday, February 25th, the executive committee will meet at the same hotel according to the official notice just issued by Secretary Paul Blatchford, 1915 City Hall Square Building, Chicago.

### DATE FIXED FOR FIRST ANNUAL MEETING OF NATIONAL PIPE AND SUPPLIES ASSOCIATION.

Announcement has just been made that the first annual meeting of the National Pipe and Supplies Association will convene in the Hotel Sherman, Chicago, Monday, April 14th, and will close Tuesday evening, April 15th. The present association represents the consolidation of the National Association of Jobbers of Wrought Pipe and Fittings and the National Association of Jobbers of Plumbing Supplies. The officials of the association, and in particular General Secretary George D. McIlvaine, who maintains an office in Pittsburg, Pa. believe that the attendance at this meeting will eclipse that of any session ever held by the former associations.

At the opening session, a feature will be made of "experience" and the meeting might be termed an "experience session." All manufacturers and their representatives will be invited to attend this session. It is hoped by the officials of the association to have a free expression of opinion by both manufacturers and jobbers regarding business conditions, both present and those which concern the future.

The Monday afternoon session will be devoted principally to the steam supply end of the business, in which many members are vitally concerned.

The Tuesday session will be devoted almost exclusively to the plumbing supply interests. This session gives promise of being one of the most interesting scheduled.

It is planned to have a free and full discussion of all topics, for it is the intent of the officers of the association to make at least its first annual convention one which will be of vast benefit to the trade and all its branches.

### ANNUAL MEETINGS OF STANDARD SANITARY MANUFACTURING CO.

The stockholders of the Standard Sanitary Manufacturing Co., of Pittsburg, Pa., held their annual meeting in Jersey City, N. J., on January 14th, at which all the members of the board of directors were re-elected. The directors of the same company held their quarterly meeting at Pittsburg on January 23rd, at which the regular quar-

terly dividends were declared, 1 $\frac{3}{4}$  per cent on the preferred stock and 1 $\frac{1}{2}$  per cent on the common. The board of directors re-elected all the officers of the company. A member of the board of directors reports that business was very good during 1912 and that prospects are bright for 1913.

### MOVES CHICAGO OFFICE

The United States Radiator Corporation has moved its Chicago branch office from the corner of Dearborn and Lake streets to quarters at 203-205 Railway Exchange Building, Michigan avenue.

### WILL MANUFACTURE PLUMBING GOODS.

The Northern Sanitary Co., of Buffalo, N. Y., has been incorporated with a capital of \$200,000 to manufacture plumbing goods. The incorporators are John H. Cooper, Charles L. Sheppard and Otto Gleupold, all of Buffalo, N. Y.

### WILL MANUFACTURE VENTILATING DEVICES.

The Modern Ventilating Co., of Cleveland, O., has been incorporated with a capital of \$100,000 to manufacture heating and ventilating devices. The incorporators are N. M. Schlitt, J. N. Bostick, Carl L. Hohage, B. B. Given and O. T. Loeh.

### NOW THE BOWLUS MANUFACTURING CO.

The H. C. Bowlus Manufacturing Co., of Springfield, O., has been reorganized and has increased its capital stock as told in this column last week. Simultaneously with this the company decided to change its name and it will hereafter do business as the Bowlus Manufacturing Co.

### REMOVAL OF VAPOR-VACUUM HEATING CO'S OFFICES.

The new offices of Vapor-Vacuum Heating Co. are now located at 843-845-847 Drexel Building, Philadelphia. R. O. Kriebel, whose name is familiar to many as being connected with the United States Radiator Corporation, will be interested in the furthering of the business at that address.

### THE PRESSED METAL RADIATOR CO. IN FULL OPERATION.

The Pressed Metal Radiator Co., of Pittsburg, Pa., which was recently organized with a capital of \$1,250,000, in shares of the par value of 100 each, of which \$500,000 is outstanding, issued as fully paid and non-assessable to old bond-holders, has taken over the business of the

Pressed Radiator Co. of America. The company states that its plant is now being operated to its full capacity, which is 5,000,000 square feet of radiation per annum. The new company is under the management of the following gentlemen: John K. Frye, president; F. C. Perkins, vice-president; A. M. Pearson, secretary and treasurer, and J. F. Siegel, general sales manager. The board of directors consists of the officers and J. W. Garland, W. N. Murray and D. N. Seeley.

#### WILL REPRESENT THE VICTOR BRASS MANUFACTURING CO.

The Victor Brass Manufacturing Co., of Cleveland, O., has appointed Leo Monaghan as its representative in Chicago, St. Louis, Kansas City and adjacent territory, with headquarters in Chicago. George F. Ramsdell will look after the company's interest on the Pacific Coast and he will make his headquarters at San Francisco.

#### THE IMPERIAL CO'S. BUSINESS NOT DISTURBED BY RECEIVERSHIP.

Owing to the sudden death last fall of Benjamin Spearman, president of the Imperial Co., of Grove City, Pa., it has been found expedient to ask the court to appoint receivers to make an amicable adjustment of the company's financial affairs. J. M. Reynolds, the company's general manager, and W. H. Christy have been appointed to act in this capacity. The receivers have just taken charge of affairs and they report that the company's plant will not close down, that business will be carried on without interruption and that all orders for plumbers' brass goods will receive prompt attention under the receivership as in the past.

#### THE ELSMERE GRANITINE LAUNDRY TRAY.

That a laundry tray can be made of such composition as to insure its perpetual wearing qualities and cleanliness is claimed to be demonstrated by the accompanying illus-



The Elsmere Granitine Laundry Tray.

tration, which is reproduced from a photograph taken last Monday. This Elsmere laundry tray was made by the Elsmere Granite Co., 1752-1756 North Spaulding avenue.

Chicago, and was installed sixteen years ago. Since that time it has been giving service without repair of any kind. The tray is said to retain its original color, not having become coated with grease or dirt. The manufacturers state that the record of this tray is common to all their laundry trays. They have recently issued new circulars showing their line of one, two, three and four-part laundry trays in low and high back designs. These circulars will be sent to interested parties upon request to the Elsmere Granite Co., mentioning "Domestic Engineering."

#### "JACK FROST" CLOSET COMBINATION.



"Jack Frost" Closet.

A. Weiskittel & Son Co., Baltimore, Md., has recently brought out its improved "Jack Frost" anti-freezing closet combination, which it is claimed is being favorably received by the trade. This closet, illustrated herewith, is made to withstand freezing temperature and is easily installed, no pit being required. The improved bottom valve can be removed without disturbing pipe, tank or closet and as all parts drain free of water, freezing is impossible. The "Jack Frost" closet combination operates automatically and has porcelain enameled flush rimmed hopper. Prices and further particulars will be furnished to the trade upon application to the manufacturers at the above address.

#### OHIO BRASS CO. ISSUES NEW FOLDER.

The Ohio Brass Co., Mansfield, O., has just mailed to the trade a most attractive folder, showing up in colors a number of its popular valves and an actual photograph of its plant and a group of employees, numbering 570 of the 650 persons on the Company's payroll. The buildings of the plant cover 10 acres of ground. This is a very interesting folder and will no doubt do the company a great deal of good. Copies will be mailed to those who have not received this folder by addressing the manufacturers and mentioning "Domestic Engineering."

#### NEW CATALOGUE OF THE SWIFT SYSTEM.

The Swift Furnace Company, 440 West 3rd street, Dayton, O., has recently mailed to the trade its catalogue No. 4, in which is fully explained the "Wonder of the Age" combined furnace, steam and hot water heater. The manufacturers claim that this product can be used as a heating plant for a great many varying conditions, for which the average furnace is not suitable, and where the owner does not desire a steam or hot water plant. This line of steam and hot water boilers is also fully described and a great deal of useful information is given in the catalogue. Those who have not received a copy of this catalogue should write the Swift Furnace Co., mentioning "Domestic Engineering."



# Convention Dates



February 18, 19 and 20, 1913.—The twenty-second annual convention of the Ohio State Association of Master Plumbers, at Toledo, O., with headquarters at the Boody House. The officers of the association are: President, John F. Drees, Cleveland; vice-president, F. W. Sponseller, Canton; secretary-treasurer, Eb Ellen, 2057 East 93rd street, Cleveland; board of directors, Harry S. Smith, Warren; Wm. E. Girkins, Toledo; John J. Vogelpohl, Cincinnati; Charles Hoffman, Mansfield.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The sessions will be held at the Builders' Exchange. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinaber, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

February 20 and 21, 1913.—Annual convention of the Nebraska Master Plumbers' Association, at Fremont, Neb., with headquarters at the Eno Hotel. The officers of the association are: President, J. C. Bixby, Omaha; vice-president, G. H. Wentz, Lincoln; treasurer, F. W. Barclay, Beatrice; secretary, J. B. Coningham, 401 City National Bank Bldg., Omaha.

February 24 and 25, 1913.—Annual convention of the Missouri State Association of Master Plumbers at Joplin, Mo., with headquarters at the Connors Hotel. The officers of the association are: President, Edward C. C. Reisel, St. Louis, Mo.; first vice-president, G. A. Wood, Springfield, Mo.; second vice-president, H. B. Schulte, Joplin, Mo.; treasurer, Jas. P. Carroll, St. Louis, Mo.; secretary, C. L. Smith, Kansas City, Mo.

March 11 and 12, 1913.—Annual convention of the New York State Master Plumbers' Association at Buffalo, N. Y., with headquarters at Hotel Iroquois. The officers of the association are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, 161 Columbus avenue, New York City; executive clerk, John E. Dugan, 4 Monroe street, Albany, N. Y.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

May 17, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind. The officers of the association are: President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

## RECEPTION AND DINNER OF THE MASTER PLUMBERS' ASSOCIATION AT ALBANY, N. Y.

The Master Plumbers' Association of Albany, N. Y., held its annual reception and dinner at the Ten Eyck Hotel, Albany, Thursday evening, January 23. The ball room of the hotel, where the dinner was served, was elaborately decorated with American flags. Over the raised platform where the guest of the evening, Frank B. Lasette, and other prominent master plumbers and guests sat, was suspended a beautifully illuminated sign bearing the inscription, "Welcome, Master Plumbers."

While no ladies were actually present at the dinner, one had but to glance above at the gallery to be reminded of the beautiful lines of Tom Moore:

"Aloft the curtained galleries rise,

Where, through the silken network, glancing eyes,

From time to time, like sudden gleams that glow

Through autumn clouds, shine o'er the pomp below."

Just before the diners sat down a reception was held in the parlors of the Ten Eyck and everyone had an opportunity of greeting the president of the New York State Association, Frank B. Lasette.

The menu was of the best and everyone present did full justice to it, while during the repast popular airs, interspersed with parodies on the popular songs of the day, were rendered by the orchestra. The dinner was opened by all standing while "America" was sung.

A souvenir, consisting of a leather covered memorandum book, was placed at the plate of each diner.

It was close to 12 o'clock when Albert J. Eckert, president of the Albany Association, introduced the toastmaster of the evening James H. Doody, secretary of the Albany Association, who introduced as the first speaker of the evening John H. Moran, ex-president of the New York State Association, who responded to the toast "Our Guests."

Mr. Moran was followed by Arthur L. Andrews, corporation counsel of Albany, who responded to the toast, "Albany, Its Future."

Mr. Andrews was introduced after a rising toast had been drunk to the two honorary members of the association, Mayor McEwen and J. Edward Janes.

A letter was read from the Hon. Mitchell May, secretary of state, regretting his inability to attend the banquet.

Telegrams from Frank Fee, national president, and Mayor James B. McEwen were also read regretting their inability to be present.

The speaker of the evening, Frank B. Lasette, was then introduced and responded to the toast, "The New York State Association of Master Plumbers."

Upon the conclusion of Mr. Lasette's remarks, a silent toast was drunk to T. A. Hill and the secretary was instructed to send a letter to his widow stating in what esteem and affection Mr. Hill had been held by the association.

Upon the conclusion of the regular toasts, the toastmaster called for impromptu speeches. Those responding to his request were J. J. Hannegan, Fred Flagg, Frank L. Beyer, Geo. Booker, James M. Heatherton, W. G. McCormick, Joseph Graham, Jonas Rossman, Jerre Murphy, Jas. B. O'Donnell.

Those seated at the guest table were Frank B. Lasette, Arthur L. Andrews, John J. Hannegan, Albion J. Eckert, James H. Doody, Frank F. Schimpf and John H. Moran.

Among the diners present were: Walter H. Caines, John J. Kavany, Al. C. Kranichfeld, August Ebke, Jr.;

Fred. W. Zander, Geo. H. Drake, Bart F. Donohue, Arthur S. Gaynor, Edward J. Renahan, Chas. A. Walsh, Harry Hemlin, I. J. Brown, J. A. Long, T. P. McLoughlin, James McManus, James McCrillah, James S. Lawlor, John R. Hopkins, John Wegman, August Hansen, J. J. Donovan, John E. Dugan, Jas. M. Heatherton, A. A. DuMond, F. E. Fladd, Louis J. Yauchzi, Fred. L. Irish, Frank Crotty, John O'Neill, James F. Griffin, J. Jarcho, M. Jarcho, Jacob Levy, J. D. Gunn, Isaac Shumway, C. K. Catania, T. E. Kerwin, Jerre L. Murphy, H. B. De Voe, P. F. Kenny, Thomas J. Tuomey, Edward J. Brady, Frank L. Beyer, B. Jos. O'Donnell, John R. Sheehan, Floyd S. Heddon, L. F. Bannon, John L. Fitzgerald, Edward J. Flood, M. D. Reilly, Adolph Fleischman, Wm. C. Schade, James J. Gorman, Horace F. Westcott, Wm. H. Branion, Howard J. Crawford, John J. Britt, Charles E. Walsh, Ed. P. Kerwin, Jeremiah Kieley, James B. Dempsey, Wm. R. Miller, Wm. R. Smith, H. C. Whitbeck, DeLancey Palmer, DeLancey M. Ellis, Chas. Boswell, Wm. Brownlow, Wm. Smith, L. N. DeLong, R. T. Horton, John B. Waldbillig, Ed Ahrens, Thomas A. O'Malley, Edward Hurley, Thomas F. Nolan, Dr. J. H. Callahan, Ted Moran, M. J. Hawkins, Wm. G. Gloeckner, Wm. G. McCormick, Joseph Graham, John H. Moran, Jr., Frank J. Moran, Frank Wade, J. H. Johnson, Harry Persons, Edgar Kenny, Frederick H. Gaylord, John Eberle, Adam E. Gray, Thomas J. Dugan, O. V. Vandecar, John Leikhim, Wm. J. Bapbst, C. P. Jones, R. E. Smith, G. L. Brucker, M. A. Cooper, L. D. Fowler, Jos. O. Stapf, Wm. Robinson, Ed Van Loon.

#### PHILADELPHIA MASTER PLUMBERS' LADIES' NIGHT AND ANNUAL BANQUET.

The popularity of the Philadelphia Master Plumbers' ladies' night is increasing year by year, as is evidenced by the attendance. In the tastily decorated banquet hall of the Hotel Walton at Broad and Locust streets, Philadelphia, 350 covers were laid and at 8:45 Monday night, January 27th, every seat was taken.

During the courses, musical selections were rendered by the Osgood-Rous Trio, later followed by the orchestra playing popular airs, which were joyously sung by the entire assemblage, song sheets being distributed.

In his usual characteristic manner, President Edward F. Roberts acted as toastmaster and his witty and clever introductions of the speakers were an entertaining and very much liked feature. National Treasurer Wm. McCoach, in his usual gracious manner, addressed the ladies especially, and affectionately paid a glowing tribute to Mrs. McCoach, who has been his helpmate in life for 36 years. Mr. Roberts cleverly introduced the Philadelphia Association's deservedly popular secretary, S. Louis Barnes and eulogistically referred to his recent election as member of the National Board of Directors. Mr. Barnes, after his usual compliments to the fair sex and expressing his gratification at the number present, complimented the committee of arrangements on the creditable way in which the affair had been handled, paying well-merited tribute to its chairman, Harry Lentz. The Toastmaster immediately followed this with flattering remarks, describing the effectual part taken by Mrs. Lentz in handling an affair of this kind. Mr. C. K. Wills, president of the Pennsylvania State Association, addressed the ladies as the real bosses, referring to the trousered part of the firm as the sub or shop bosses, and spoke on trade conditions in general. The Toastmaster, wishing to give more time to the dancing, terminated the speeches

by introducing Mrs. Harry L. Righter as "Chairlady" of the Ladies' Reception Committee, and humorously pictured Mrs. Righter mothering and chaperoning Philadelphia's delegation to the Salt Lake convention. Mrs. Righter, with fitting remarks, asked for the support of the ladies present in properly preparing for and in entertainment of the visitors for the National convention in June.

The rapidly clearing banquet hall was soon ready for the dancers and the ladies, with their beautiful gowns, soon presented a picture long to be remembered. A handsome souvenir in the shape of a berry spoon, furnished by the silversmith department of John Wanamaker, was presented to every lady present.

The committee on arrangements can not be given too much credit for the excellent manner in which its duties were performed. This committee consisted of the following gentlemen: Harry B. Lentz, chairman; Edward F. Roberts, Gregor Drummond, S. Louis Barnes, Robert H. Pflug-Felder, Harry K. Bisbing and George Moeller.

#### THE THIRD ANNUAL BALL OF THE CHICAGO SOUTH SIDE MASTER PLUMBERS' CLUB.

One Friday evening, January 24th, the South Side Master Plumbers' Club gave its third annual ball at the Forum Hall, 43rd street and Calumet avenue, Chicago. The affair was a decided success from every viewpoint. In the neighborhood of thirteen hun-



John J. Delehant, of Chicago.

dred tickets were sold and over two hundred and fifty couples were in attendance. Music was furnished by Fisk's orchestra, while between dances a vocal soloist entertained the happy party. Preliminary dancing started at nine o'clock and shortly after ten the grand march started the regular program. John J. Delehant, the popular master plumber, led the grand march with his wife, followed by Mr. and Mrs. J. J. Kratz and about two hundred and fifty other couples. The entertainment committee, to whom credit is due for the success of the event consisted of the following members: J. A. Goodbrand, chairman; George Breetzke, John J. Burns, James Coupland, John Delehant, C. A. Dreier, William Dullard, S. Erman, I. Euphrat, P. J. Foley, J. B. Hand, George Hazard, M. L. Haynes, E. A. Kingsbury, John Kleker, M. J. Kubick, J. J. Flavin, J. J. Loughlin, F. W. Radcliff, Charles F. Taffe and C. J. Wolf. Quite a number of the master plumbers from other parts of the city were seen in the merry crowd. Frappé was served as refreshments during the entire program.



### AUGUSTA, GA., MASTER PLUMBERS' ANNUAL DINNER.

The Master Plumbers' Association of Augusta, Ga., held its annual meeting and dinner at the Elks' Club in that city on Wednesday evening, January 22nd. The election of officers for the ensuing year resulted as follows: President, E. J. Erbeling; vice-president, T. G. Brittingham; secretary, F. M. Barrett; treasurer, T. Miller Morris; finance committee, A. S. Hutt, T. M. Morris and O. L. Dobson; entertainment committee, E. J. Erbeling, T. G. McAuliffe, T. G. Brittingham and Henry Hutt. The election over, the members gathered at the Elks' dining room, where a very elaborate oyster supper was served. Following the supper the members discussed plumbing conditions in Augusta and renewed their determination to foster high grade plumbing in all their work. They also went on record as favoring the advisability of working for the owner and eliminating all sub-contracting. It is expected that 1913 will be one of the best building years Augusta has experienced, and the master plumbers are therefore in a most optimistic mood.

### BALTIMORE MASTER PLUMBERS' ANNUAL BALL.

The Master Plumbers' Association, of Baltimore, Md., held its annual ball on Monday evening, January 27th, at Lehmann's Hall in that city. The event was exceedingly successful in every respect, more than five hundred members of the trade being in attendance.

### FIRST ANNUAL MEETING OF NEW ENGLAND ASSOCIATION OF PLUMBING INSPECTORS.

Forty members of the New England Association of Plumbing Inspectors gathered at the Elks' Home in Boston on Jan. 25th, for the first annual meeting of the organization. The association is by no means in its infancy except as to name, for it had previously been known as the Massachusetts Association and broadened its scope a year ago.

The meeting was presided over by President Oswald J. Cullingham and a number of matters of interest to inspectors was discussed at length. A proposition for the creation of an honorary class of membership was discussed but no action was taken and the matter was allowed to lie on the table. One new member, A. F. Moynihan of Everett, was elected.

Reuben S. Bemis, of Providence, R. I., read an interesting paper on the development of the sanitary engineer.

Mr. Bemis and Thomas M. Wilson and William A. Wheeler, of Boston, were named as a committee to select a place for the midsummer meeting. A committee appointed at a previous meeting to consider the publication of a hand-book was continued and will report again at the next meeting.

The new officers elected were: President, Henry H. Wilcox, of Taunton; first vice-president, Rhode Island, Reuben S. Bemis, Providence; second vice-president, Massachusetts, John F. Hurley, Worcester; third vice-president, Maine, C. O. Morton, Portland; fourth vice-president, New Hampshire, D. W. Mitchell, Keene; fifth vice-president, Connecticut, G. G. Conron, Stamford; secretary, Ernest G. Bates, Springfield, Mass.; treasurer, John H. Mulloney, Boston.

Andrew J. Burnett, of Melrose, was chosen chairman of the committee on ways and means; Thomas M. Wil-

son, of Boston, chairman of the legislative committee, and Maurice B. Coleman, of Newton, chairman of the scientific committee.

Among the members present were:

Massachusetts: Ernest G. Bates, Springfield; John F. Bresnahan, Fitchburg; Albert R. Brown, Southbridge; James W. Brown, Brockton; Andrew J. Burnett, Melrose; Henry J. Clayton, Boston; Maurice B. Coleman, Newton; Dennis H. Collins, Boston; Thomas E. Crosby, Boston; Oswald J. Cullingham, Lawrence; Stephen J. Garrity, Lowell; Robert W. Godfrey, Boston; William P. Glennon, Boston; Sumner W. Hebblethwaite, Chelsea; Fred W. Herrick, Beverly; Douglas W. Hyde, North Adams; Jeremiah J. Kenily, Quincy; James H. Lynch, Fall River; Richard A. Lynch, Boston; John B. McGrath, Boston; A. Lincoln Moody, Waltham; Leslie E. Morrison, Medford; John H. Mulloney, Boston; Joseph F. Salter, Boston; Patrick T. Slattery, Boston; Frank W. Tower, Springfield; William A. Wheeler, Boston; Charles A. White, Boston; Henry H. Wilcox, Taunton, and Thomas M. Wilson, Boston.

Rhode Island: Reuben S. Bemis, Providence; H. B. Holland, Providence.

Maine: C. O. Morton, Portland.

New Hampshire: C. O. Seaman, Manchester.

Connecticut: J. R. Walker, Waterbury.

### CONVENTION OF ILLINOIS PLUMBERS AT SPRINGFIELD THIS WEEK.

The first session of the twenty-first annual convention of the Illinois Master Plumbers' Association opened at Springfield last Tuesday morning with an address of welcome by Mayor John S. Schnepf. T. E. Walters, of Aurora, replied, regretting the inability of Governor Deneen or Governor-elect Dunne to be present. The balance of the morning session was devoted to the executive session, reading of reports, and roll call.

While the committees were at work in the afternoon, those not so engaged gave attention to the manufacturers' exhibits in Arion Hall. There was no set program for afternoon or evening.

The sessions of Wednesday were executive, and took up consideration of the proposed changes in the state plumbing law, several changes in the association's by-laws, and a recommendation that Governor-elect Dunne appoint a member of the association on the state board of health. David Ross, secretary of the state bureau of labor statistics, spoke on the Workmen's Compensation Act, setting right many misunderstandings of this law.

In the evening a notable address on "Principles of Advertising and Salesmanship" was delivered before the members and various commercial bodies of Springfield, who came as invited guests, by Dr. Stanley L. Krebs, of Philadelphia. His talk was an inspiration to all who heard it.

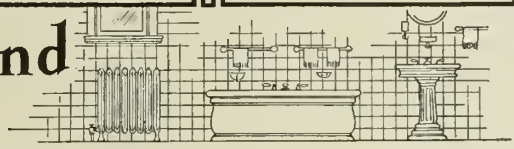
After the executive sessions of Thursday, the election of officers was held, which resulted as follows:

President, W. J. Hilliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, John L. Robertson, Mason City; treasurer, O. W. Dawson, Decatur; delegate to the national convention, George S. Moore, Evanston; alternate, J. J. Ruddy, Aurora.

A most enjoyable banquet was held Thursday evening, and the guests listened to toasts until a late hour.

Look for full report of the Illinois Convention, profusely illustrated, in our issue next week.

# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—J. J. Wade & Son Co., 43 E. Harrison street, has been awarded the plumbing contract on a manufacturing plant to be built at 3226-70 Belmont avenue, Chicago. The building will cost \$300,000. The Wade firm is also putting the finishing touches to plumbing installations in the Westminster building at Monroe and Dearborn streets.

James Smith, sanitary inspector in Winnipeg, Canada, has written his Chicago friends that he is preparing an address entitled "The Action of Frost on Plumbing Systems," which will be read at the Louisville convention of the American Society of Plumbing Inspectors and Sanitary Engineers next May.

Thomas J. Claffy, assistant chief, Bureau of Sanitation, Chicago, has received a letter from William C. Groeniger, state inspector of plumbing of Ohio, in which he says in part, "I trust that you will be successful in securing a state plumbing code and a state plumbing inspector for Illinois."

An exhibition of commercial vehicles of especial interest to master plumbers and plumbing supply houses will be shown at the automobile show in the Coliseum from February 10 to 15. Business men will then have a chance to talk with exhibitors without the annoyance and interruptions incident to the crowds of pleasure seekers attracted by the passenger vehicles, which show opens the first week in February.

The next monthly meeting of the Illinois chapter of the American Society of Heating and Ventilating Engineers will be held at Vogelsang's restaurant, Monday evening, Feb. 10th, at 8 o'clock. The topic for the occasion will be "Expense of Operating Heating and Ventilating Plants."

Public sentiment in the northern section of Chicago is in favor of a sewer to be built by the sanitary board from towns on the north shore to the Wilmette-Evanston canal. The proposition is being enthusiastically endorsed by the North Shore Citizens' Association, which has called a series of mass meetings. The officers of the association declare that action is necessary in order that disease may be prevented by a thoroughly sanitary method of sewage disposal.

## Minnesota

Minneapolis.—During the past week few contracts have been let, but reports show that a great many plans will soon be ready for figures, both on the large buildings and residences.

As to the Master Plumbers' Association, it is a great pleasure to say that conditions are vastly improving, and it looks as if St. Paul and Minneapolis are going to have real live associations. One of the new features which is being contemplated is having alternate monthly meetings

of the associations between St. Paul and Minneapolis; that is, one month the St. Paul members come to Minneapolis and hold a meeting with the Minneapolis members and the next month the Minneapolis members go to St. Paul. It is felt this will be beneficial, as it will establish a more friendly feeling all around.

At the meeting of the Minneapolis Association in the early part of January the following new officers were elected: George K. Belden, president; Lew Johnson, vice-president; S. B. Harvey, secretary; H. S. Thompson, treasurer.

The Hughes Heating & Plumbing Co., 1514 E. Franklin Avenue, were successful in securing the plumbing for the new office toilet rooms of Janney, Semple, Hill & Co.

George Worthingham & Co., 322 Third Avenue South, were awarded the plumbing contract in the New high school at Truman, Minn., for the consideration of \$3,000. It is to be a septic tank system.

Al Z. Potts & Co., St. Peter, Minn., have put in a very busy fall, and at present have a number of contracts on hand, one of the larger ones being the Le Sueur Center jail.

A. W. Perry, Ada, Minn. has secured the heating contract in the residence of Mr. Rush.

The Como Plumbing Co. has secured the plumbing in the new residence of Mr. Howard, 1063 17th avenue S. E.

Fred Lang, jr., 609 Plymouth avenue N. was awarded the heating in the new residences of Mr. Sachs, 11th avenue S. and 4th street, and Mr. Schmidt, 1401 N. Newton avenue.

Strader & Greening, 139 E. Lake street, are installing the plumbing in the new residence of Mr. McMarkets, 3624 Pillsbury avenue.

George Worthingham & Co., 322 3d avenue S., were awarded the plumbing in the new residence of R. W. Munzer, 2323 Newton avenue S.

B. H. Nelson, 734 E. Lake street, secured the plumbing in the Finke 14-flat building at 28th street and Hennepin avenue. The heating contract has not been let.

Chas. Wilkins & Co., 610-12 3d avenue S., have secured the plumbing and heating in the Theo. Basting building for J. C. Oswald estate at Hennepin and Laurel avenues. It is to be a large garage with flats above.

W. C. T. Hamilton, 2721 Pleasant avenue, was the successful bidder on the heating in the T. B. Walker building, at 1st avenue N. and 6th street.

St. Paul.—Nels Nelson, 1467 Hewitt Avenue, reports the following heating contracts closed for future work: four flat building for Olag Swenson, Case Street; a residence for Louis Johnson, Lincoln Avenue; four dwelling houses for Homer Elmer; a duplex flat for Lundquist Bros., Laurel Avenue; a duplex flat for Kovantinetz Bros., 644 Ashland Avenue; a residence for A. Vaelter, 1108 Jenks Street; for Ben Halmburg, 1473 Hewitt Avenue; for M. J. Solum, on Van Buren Street; for Paul Steenberg at 1589 Laurel Avenue; and for R. J. K. Murray at Aurora and Chatsworth Streets.

The plumbing bids were rejected on the German Evangelist Lutheran Church. George McGeary, 187 West Third Street, was awarded the steam heating contract.



Clarence Johnston, architect, 603 Capitol Bank building, reports the contracts let on Mr. Gebhard Bohn's summer home at Crystal Bay, Lake Minnetonka. Art Swenson, 916 Case Street, was awarded the plumbing contract, and E. E. Sparr, 513 Pioneer Press building, was awarded the hot water heating.

The mechanical construction contracts on the White Bear yacht club building at White Bear Lake were let to the following contractors by Reed & Stem, architects, in the Endicott building: The contract for plumbing and sewerage disposal was let to Baird & Sudheimer, 104 Iglehart Street; the heating to Hankee & Eha, 109 East Fourth Street.

Louis Rozycki, 800 East Lawson Street, was low bidder on the plumbing and gas fitting in James Shield's new residence, to be built on Summit Avenue. The heating contract was awarded to J. P. Adamson, 1920 West University Avenue.

Bert O'Neil, 899 Fuller Street, was one of the busy steam-fitters in the city during the year just passed. Mr. O'Neil reports that he put in 181 hot water and steam heating systems during the year.

Nels Nelson, 1457 Hewitt Avenue, was awarded the hot water heating in a new building at East Seventh and Hope Streets for Mr. C. H. Helmes.

## California

San Francisco.—The heavy rains which, following the recent killing cold spell, have fallen all over California have very much brightened the outlook and mitigated the fear of general disaster. Plumbers and plumbing supply men generally are of the opinion that the business interests of the state have not met a lasting reverse. They think the temporary setback will be quickly followed by a renewed feeling of confidence and a general resumption of activity. While the harm to the citrus fruits is serious and past remedy, the rains have saved vegetables and other important crops, and as these are widely diversified, business in the state as a whole will not suffer greatly. The opinion is current in the trade, also, that, as illustrating the well-known law of compensation, the harm wrought by the killing frost will bring real and substantial good in the shape of new methods of coping with this danger in the future.

Already plans are being discussed and perfected looking to the mechanical circulation of air in orchards—in other words, artificial wind. There seems to be no good reason why, if a room can be ventilated to prevent uncomfortable heat, a field cannot be "ventilated" to prevent frost in extreme cold weather. With proper suction, exhaust and blower appliances, this seems to be feasible, though its practicable application is to be proven. Smudging, even with the newest devices, upon which orchardists have put their faith seems to have disappointed them. And while other and perhaps more effective smudging methods will be tried with better results, the opinion is growing that the mechanical creation of wind will come nearer filling the bill. The one circumstance, outside the cold itself, that caused the recent loss was the entire absence, at the critical time, of all wind, thus giving the frost a chance to get in its work. A system of mechanical fans, etc., driven by an electrical motor, would no doubt realize the much-sought safeguard.

Fuel oil is rapidly taking the place of coal in San Francisco and vicinity. Fuel oil is much cheaper than coal, except in cases where, as is often done, exhaust

steam is procured as a waste product from manufacturing and electrical plants. Plumbing men are of the opinion that fuel oil will in the near future, very largely predominate for heating purposes, with the oil burner in very largely increasing demand.

A very significant fact which members of the trade point out is the marked tendency on the part of builders to demand a better quality of plumbing material. This has been seen more or less ever since the fire of 1906, but is increasingly in evidence now. Vitreous tanks in toilets, in the place of the old wooden or enameled iron ones, is only one case in point. In San Francisco and generally throughout the state all builders are demanding the newest and best in all plumbing supplies.

The State Executive Board of the California Master Plumbers' Association met in San Francisco January 17th and 18th. They met with the San Francisco Master Plumbers' Association and also, on other dates, with the Association of Alameda and Oakland. The State Executive Board consists of the following: President, E. W. Crowell, Los Angeles; vice-president, John Cahill, Sacramento; corresponding secretary, J. L. E. Firmin, San Francisco; Thomas Haverty, San Francisco; Frank J. Flynn, San Francisco; Frederick Heilbrom, San Diego, and William Rowe, Fresno. The position of state treasurer, formerly filled by William F. Wilson, of San Francisco, recently deceased, has not yet been filled.

Recent meetings of the state executive board of the Master Plumbers' Association in San Francisco have been productive of much good, particularly in working toward continued harmony between the master plumbers and the journeymen. It has practically been decided that the next annual convention of the association will be held at Santa Barbara.

The association is strongly supporting efforts to pass legislation which would be helpful to the trade. For one thing, a bill is being prepared dealing with sanitary comfort stations in municipalities. Senator Tom Finn of San Francisco is preparing a bill providing for a state plumbing board, along the line of the bill introduced two years ago, but which failed to get the governor's signature. While this bill may not go through this session, it is thought certain by those plumbers who have studied the matter that municipal and state laws will soon be in effect that will at least put communities of this state on a par with European countries in sanitary matters.

At its last meeting, the executive board passed resolutions of respect and condolence in connection with the recent death of William F. Wilson, secretary of the association, and also of past-president Hill of the National Association.

At a recent meeting of the ladies' auxiliary of the Master Plumbers' Association, the following officers were elected: President, Mrs. A. Coleman; vice-president, Mrs. W. Buick; secretary, Mrs. W. E. Bunker; treasurer, Mrs. A. J. Moliis; marshal, Mrs. S. J. DeVecchio. An enjoyable banquet at the Germania Hotel was tendered to the members and their escorts. The ladies' auxiliary has planned to give a masquerade ball on the evening of Feb. 1st.

Alfred Clark has opened a plumbing shop at Marysville, Cal.

The city of Los Angeles has made provision to add three more members to its force of plumbing inspectors, the enormous amount of building in the last few months having proven more than the old force could look after. The city is doing a large amount of municipal improvement work calling for supplies in the plumbing line, the latest requirement, for which bids will be opened Jan. 28,

being about 14½ tons of lead service pipe, in sizes ½-in. to 2-in.

J. B. Welch, who has been with Healy Bros., plumbers, of Eureka, for the last eight years, has bought out the entire plumbing business of that firm.

Randall & Matheson, plumbers, of Walnut creek, are building a new shop.

An interesting feature of the freeze early this month in some of the irrigating districts of the state was the bursting of water-cooled gas engines. The freezing of water in the engine jackets in the valleys of this state had been unheard-of in the past, and no precautions were taken to let out the water when the engines were not in use.

The intention of those in charge of the Panama-Pacific Exposition to have an abundant water supply, both for ordinary use and for fire protection, is signified in the call for bids to be received Jan. 28 for the installation on the grounds of a high-pressure system and a water service system. By the terms of the contract both jobs are to be completed in nine months after letting of the contract. The high pressure system will be used for fire protection only, and it is expected to make arrangements with the city authorities for connecting this with the city's salt water mains. The hydrants will be below the ground, covered by manholes. The system will be 9½ miles long, of pipe 6 to 16-in., with 180 hydrants. The service system will require about 12 miles of pipe, not including that used in plumbing within the buildings.

Stocks of pipe in San Francisco are the largest in a long time. It is reported in some quarters that several large jobbers have enough to supply their normal trade for the next six months, and in at least one case, for eight months, though with the present activity it is not expected to last that long. It is impossible to tell what proportion of this is merchant pipe, as some leading mills have been shipping only full-weight pipe for several months. If prices are maintained, the jobbers will undoubtedly make a neat profit, especially on any merchant pipe they have left.

## New Jersey

Bridgeton.—C. W. Richards Co. has been awarded the contract to install plumbing and heating in the new glass factory which is being erected in Swedesboro, N. J.

Geo. W. Harper is making extensive alterations in the plumbing system at the post office.

The new water works station in this city has been thrown open to the public. It is a magnificent building and equipped with the latest types of machinery. Mr. Bert Ryan has been appointed superintendent to succeed Mr. T. Woodruff, who has resigned after serving the city for 25 years.

Paterson.—The Paterson Sanitary Plumbing Co., of this city, has been incorporated with a capital stock of \$1,000.

## Connecticut

Waterbury.—W. T. Corcoran has the contract for installing plumbing in a building on South Elm Street which is being remodeled for the Italian Congregational church.

F. W. Engert & Son have been awarded the contract for the plumbing and heating of a three-family house to be erected on Cooke Street for Timothy J. Brennan.

East Hanford.—Charles F. Gifford has been appointed to the office of building and plumbing inspector and has established headquarters in Wells hall, with office hours on Saturday afternoons from 2 to 5 o'clock and Tuesday evenings from 7:30 to 9 o'clock.

C. B. Peterson has been obliged to enlarge his plumbing establishment at 28 Saunders Street in order to care for his increasing business.

Hartford.—Representative Julius Stremlau, of Meriden, has prepared a bill to be presented to the state legislature providing for the licensing of plumbers in Meriden. The bill is to be presented at the request of the plumbers themselves. It provides that plumbers, both masters and journeymen, must pass suitable examinations before they will be permitted to engage in business or follow the trade.

New Haven.—Morris Batter has sold out his jobbing business and has opened a hardware and plumbing shop. He has the plumbing contracts in residences for W. H. Farnham, on Unila Street, and H. E. Dupee, on Reed Street.

S. Lyman & Co. are doing the plumbing in a building on Chappel Street for Rappaport & Co.; also the plumbing and heating in a new theater at Derby, Conn., and are remodeling the plumbing in a residence for M. Adelman, on Congress Avenue.

Menzies & Menzies are installing plumbing in a building for the Yale University, on Elm Street.

## New York

### Office and Display Room at Binghamton.

The accompanying illustration of the office and show room of W. S. C. Smith at 44 Henry street, Binghamton, N. Y., gives a fair idea of the display that he carries. Mr. Smith had a very prosperous year's business through



Office and Show Room of W. S. C. Smith, Binghamton, N. Y.

1912 and it is his experience that the attractive display that he now has will help him in 1913. Mr. Smith believes in making a business-like profit on the goods he sells as well as on his labor.

Utica.—Thos. Breen Plumbing & Heating Company has leased the building at 92 LaFayette Street, which it will hereafter occupy in addition to the quarters in the rear, which the company has used heretofore. The front section has been equipped as an office and an attractive display of plumbing fixtures has been installed.

Rochester.—The Central Plumbing & Heating Co. has been incorporated with a capital of \$5,000. The incorporators are Louis F. Zimmer, Edward J. Hutter and John W. Ash, of Rochester.



## Massachusetts

Boston.—A big boom for South Boston is predicted as a result of proposed harbor improvements. At a meeting of the Massachusetts Chapter of the American Society of Heating and Ventilating Engineers, held at the Boston Press Club, President John J. Martin expressed the opinion that the building of the big dry dock will result in the practical rebuilding of that section of the city. Ventilation in schools and uniform legislation on ventilation and kindred subjects were the topics of discussion at the January meeting. The legislative committee, composed of Frank I. Cooper, J. W. H. Myrick, William N. McKenna and A. B. Franklin, presented a report on a bill now before the legislature providing for the separation of heating and ventilating contracts. No action was taken on the report. The guests of the evening were F. S. Hind, T. F. McCoy and I. Caigan of the Massachusetts Institute of Technology, William W. Underhill and Frank H. Morgan of Lynn.

Somerville.—Ralph W. E. Milliken, of Wallace Street, has re-entered the plumbing business and has taken charge of a shop at 261 Elm Street, formerly conducted under the name of Milliken & Clement, and more recently as H. B. Clement. He will run it in connection with another shop at 1137 Broadway under the firm name of Milliken & Co. Mr. Clement has become associated with Sleeper & Littlefield, dealers in automobiles and supplies, at 16 College Avenue, and has installed a plumbing department.

Amesbury.—M. E. Deal, formerly of Winthrop, Me., who recently opened a plumbing establishment in this town, reports unusually good business.

Waltham.—Contracts for heating the new Waltham building and the Association building have been let to Taylor & Percival and Frank D. Welcome, the contract being divided. The plumbing contract has been given to Fred H. Kirwin.

Adams.—Edward Riley is to have an up-to-date steam heating plant installed in his block, the Riley block, in McKinley square. The contract has been placed with J. J. Carney.

Worcester.—Joseph D. Rutman, plumber, with place of business at 85 Water Street, has been petitioned into bankruptcy in the United States court at Boston. The scheduled liabilities are about \$5,000 and the assets \$1,500.

Lawrence.—A central heating plant which would furnish heat for the municipal hospital, city home and city farm is being considered by the city government.

Brockton.—The J. J. Powers Plumbing Co. has the contract for plumbing in the new high school building at Whitman and in the Home National Bank of this city.

Haverhill.—G. J. Kelley has been awarded the contract for plumbing the new tuberculosis hospital for \$1,298, and the Haverhill House Heating Co. has been given the heating contract for \$1,575.

Springfield.—Le Beouf and McNerney have the contract for plumbing in a residence for Mrs. S. Wolfson, 539 Worthington Street.

The C. A. Albe Co. has the plumbing contract in a block for Milton Bradley Co., on Willow Street; H. Huttenen, on Morris Street; C. A. Cunningham, on Union Street.

Lynn.—Contractors for plumbing and heating in the new tuberculosis hospital have been awarded. The former was placed with Robbins & Robbins and the latter with J. H. Pension.

Cambridge.—After a business association of nearly ten years under the firm name of Higgins & Co., plumbing and heating contractors, Arthur L. England and James S. Cassidy have dissolved partnership. Mr. Cassidy, who is president of the Massachusetts State Association of Master Plumbers, is to continue the business, discharging all debts and receiving all moneys due the old firm. Mr. England will not for the present engage in active business. Mr. Cassidy will continue the business under the old name of Higgins & Co. and will keep his headquarters at the old stand, 700 Massachusetts avenue. During the ten years of their association together Mr. England and Mr. Cassidy have done a large amount of plumbing work and have equipped many of the largest buildings in the city. Much of the success has been due to Mr. Cassidy, who is a practical engineer as well as being thoroughly versed in his trade.

Springfield.—Joseph Smith has engaged in the plumbing business and has established himself at 37 New Street. He has started the ball rolling by securing contracts for the plumbing installation in five new houses on Moreland Street and a contract for a similar installation in two new houses on Virginia Street.

Stanford Bros., 63 Main Street, have under way the plumbing work in two two-family houses near Forest Park for Chaplin & Chaplin.

## Pennsylvania

Philadelphia.—Simon & Gallagher, 443 N. 63rd street, have been awarded plumbing contract in the new building which is now under construction at the corner of 46th and Girard avenue for E. W. Woolman. The West End Heating Co. has been awarded heating contract on this building.

J. Borden & Bro., 637 N. 19th street, have been awarded heating and plumbing contract in the building at corner 22nd and Berks street for M. S. Maloney.

Chas. D. Fricka, 1328 N. 17th street, is making extensive alterations in the plumbing in the apartment house at 27th and York streets.

J. H. Wohlfeld, 7th and Jefferson streets, is introducing plumbing in the property at 1468 N. Marshall street.

J. A. Quinn, 1613 Unity street, Frankford, has just been awarded plumbing contract for 18 new houses which are being erected in Tacony, Pa., for Jas. Orr.

H. L. Roberts, 1512 Vine Street, has been awarded the heating contract in the residence of Senator McNichol, 221 North Sixteenth Street and in the residence of S. J. Parrott, 1936 Ontario Street.

J. C. F. Trachsel, 230 Arch Street, has been awarded the heating and plumbing in the residence of J. W. Millick, 1505 N. 17th Street.

E. Catsiff, 1007 N. 7th Street, has been awarded the heating and plumbing in the Eleanor apartments, 4112 Parkside Avenue.

B. Landau, 1206 N. 4th Street, has been awarded the plumbing and heating in twelve new houses which are being erected in Lawndale, Pa., for Mr. Adair, and is just completing installation in the apartment house at the corner of 4th and Poplar Streets for the Reliable Construction Co.

J. J. Mulhern, 3625 Haverford Avenue, is installing plumbing and heating system in the new residence which is being erected at 3626 Sansom Street for Mr. M. Mauline.

Charles Rapp, 720 Lycoming Street, has been awarded

plumbing and heating in the residence of Charles Voechler, 614 Luzerne Street.

Bulman Bros., 2532 N. 5th Street, have been awarded the plumbing and heating contract in the building at the corner of Palethorp and York Street for Mr. Schwenleten.

Bowers Bros. & Co., Real Estate Trust building, are installing vapor system in the building at the corner of 18th and Norris Streets for C. D. Williamson.

I. S. Shreve, Tacony, Pa., is doing extensive alterations in the heating and plumbing systems in the factory of Schwartz Wheel Co., Frankford, Pa.

S. E. Brown & Co., Builders' Exchange building, have quite a little heating work on for the lateness of the season. They are installing systems in the residence of Charles Sweeney, 160 N. 21st Street; 1009 Bainbridge Street, for W. G. Parke; at corner of 17th and Christian Street, for Wm. Allmond, and in the building at 5226 Market Street, for Penrose Fleisher.

Pittsburgh.—Quite a number of small contracts have been awarded to Pittsburgh plumbers during the last two weeks, but no large work is in sight just at this time. The story, however, is current that the plans have been drawn for a 20-story hotel, to be built on the site of, or adjoining, the Seventh Avenue hotel on Liberty Avenue. According to the reports in the district now this hotel will be somewhat different from any other in the city, so far as the volume of plumbing work is concerned, inasmuch as there will be baths and showers to over 75 per cent of the rooms. The contractors have not been advised fully concerning the plans of this new house, although architects have been at work on plans for several months.

The General Pipe Bending and Erecting Co. has taken out a Pennsylvania charter, the incorporators being James W. Prenter, W. L. James and Walter McMinn. The plant is located at 3020-3026 Liberty Street, this city, for fabricating piping material. J. W. Prenter, president and sales manager, was formerly with the sales department of Best Manufacturing Co.; W. J. James has been erecting engineer for same company; Mr. McMinn was formerly shop superintendent of Pittsburgh Piping Equipment Co.

Pittsburgh.—The Pittsburgh Master Plumbers' Association has appointed a committee to get up a scheme of local organizations throughout the Pittsburgh district with representation at a central body, somewhat after the plan that is so successfully carried out in New York City. The committee that has this work is composed of F. J. Hanley, chairman; W. H. Rowswell, John B. Paul, Robert Henderson, A. J. Zilliox, Harry Thoma, David Dudgeon, Harvey Lewis, jr.; Reynold Busse, Hugh M. Hay, H. R. Wickes, Wolf Plumbing Co., Geo. Rodgers, M. Snively, Frederick Webster, E. M. Tate, Moritz Wolf, Thomas W. Bryan, W. J. Elkin, R. J. Hannan, J. W. Scott, F. M. Eiber, A. H. McMinn, Geo. E. Dietrich and Thomas Priddy.

Among the large number of small contracts awarded Pittsburgh and vicinity plumbers during the last two weeks are to be found the following: F. E. Geisler was awarded the steam heating and ventilating for the new vaudeville theatre being built in the East End by Thomas B. Moreland; J. I. Dick, Scottdale, Pa., will do the heating work in the new business block being built at Uniontown, Pa., for the Union Supply Co.; C. O. LaClair, Uniontown, Pa., was awarded the heating and ventilating of the new \$8,000 residence being built at Uniontown by R. G. Weltner; the Stahl Plumbing Co., Connellsville, Pa., will do the plumbing on the \$20,000 school building being built at Trotter, Pa.; the Columbus Heating & Ventilating Co. of Columbus, O., have just been awarded the contract for the heating on the \$20,000 school in Penn

Township, this county. The Kunza Plumbing Co. of McKeesport, will do the plumbing work on this job; the Ideal plumbing Co., of Youngstown, O., will do all the heating work in the new store and apartment building at Lowellville, O., which is being built by the Pabst Brewing Co., Milwaukee; Moss & Blakely of this city will do the plumbing work in the new M. J. Alexander residence; the Anderson-Darragh Co. were awarded the heating contract.

## District of Columbia

### A PLUMBING INSPECTOR AS A WARRIOR.

It is generally believed that the only people that a plumbing inspector makes "war" on are the plumbers, but it is the pleasure of "Domestic Engineering" to present herewith a photograph of Alfred R. McGonegal,



A. R. McGonegal, Plumbing Inspector, Washington, D. C.

Inspector of Plumbing for the District of Columbia, when he was making war on someone else, besides plumbers. This photograph was taken during the annual camp of the District of Columbia National Guard at Harpers Ferry, W. Va., of which Mr. McGonegal has been an officer for a number of years, and he takes great pleasure in attending the annual summer camp and taking an active part in the annual Army Maneuvers of the Red and Blue contestants.



## Wisconsin

Milwaukee.—The department of public works has prepared plans and estimated for a public comfort station under Grand Avenue bridge at the request of Mayor Bading. According to the prepared plans, the station can be erected and furnished for less than \$5,000. The station erected on the Sixth Street viaduct cost the city \$15,000. An offer has been received by the city to build and furnish the station complete in return for the privilege in connection with it for a term of ten years, after which it is to be turned over to the city. The common council will be asked to take immediate steps toward securing the proposed station.

Fond du Lac.—The Ahern-McCoy Co. of Fond du Lac has been awarded the contract for installing the new vacuum steam heating plant to replace the present plant in the county court house and jail. The county board decided to install one unit to furnish heat for both buildings after a careful investigation of similar plants. The plant will be installed in the court house and steam pipes extended underground to the jail. The plant will be installed as soon as the warm weather returns, the present plants having been repaired so as to last through the winter. The cost will reach \$5288.

Menomonie.—Frank Hengel has acquired the interest of E. R. Trautman in the plumbing and heating firm of Trautman & Hengel, following the dissolving of the firm.

Two Rivers.—John W. Levanetz and Wm. Schaefer have dissolved partnership in the firm of the Sanitary Plumbing Co., doing a plumbing and heating business here. Mr. Levanetz will continue.

Wausau.—The plumbing firm of Hett & Molter of this city has been dissolved, B. J. Hett retiring from the firm. N. P. Molter will continue in business at the old stand under the new firm name of N. P. Molter Plumbing & Heating Co.



### APATHY IN THE IRON MARKET.

The market lacks snap, no large orders being placed either for pig iron or finished material. The situation during the first month of the year seems less active in contrast with the wonderful activity during the last few months of 1912, and for this reason has caused more comment. No iron producers either in the north or south have an accumulation of pig iron, and mills of all centers have sufficient business for the next few months. The only weak point in the entire situation seems to be in the scrap market, where quotations continue to decline and stocks to accumulate. In heavy melting steel scrap there has been large accumulations both in yards of buyers and at the mills.

Quotations for pig iron are as follows:

2 Southern Foundry Birmingham .....	\$13.50 to \$14.00
2 Southern Foundry Cincinnati .....	16.75 to 17.25
2 Northern Foundry Chicago .....	18.00 to 18.25
2 x Northern Foundry New York .....	18.25 to 18.75
2 Plain Northern Foundry New York ....	18.00 to 18.25

### DECLINE IN COPPER.

A further slump in the copper market in London brought prices down in New York, and sales in electrolytic were made as low as 16 cts. New York. There was fair buying done for February delivery, but beyond that consumers refuse to enter the market nor did producers care to press their stocks on unwilling purchasers. That the producers have disposed of a fair volume of metal is undeniable, and on the other hand they are not in the strong position they were four months ago. It is believed by those conversant with the situation that prices will probably decline further before any pronounced advance takes place.

### LEAD.

The market is exceptionally quiet at 4.35 New York and 4.20 St. Louis.

### SPELTER.

The declines in other metals brought price of spelter down 15 points and prime Western can be bought at 17 cents.



### C. M. P. Steele.

Charles Moulton Plummer Steele, treasurer of the firm of C. M. and H. T. Plummer, dealers in steamfitters' and plumbers' supplies, of Portland, Me., dropped dead while walking on the street in that city about noontime on January 21. Death was pronounced due to a sudden affection of the heart, brought on by acute indigestion. He was 46 years of age and had been connected with the firm of which he was treasurer for 22 years.

### M. A. Green.

Murray A. Green, head of the plumbing firm of M. A. Green & Co., of Bridgeport, Conn., was stricken by apoplexy at his office on Jan. 16th and died before a physician could reach him. He was 61 years old and had been in business at the same address for more than a quarter of a century. A wife and daughter survive him.

### H. E. Wentworth.

Howard E. Wentworth, who had recently opened a plumbing establishment in Amherst, Mass., after working at the trade with Charles Dance & Son for several years, was drowned in a well at his own home January 11. The curbing had been removed and the ground about the place was quite slippery. In some way Mr. Wentworth lost his balance and fell into the well and drowned. He was 25 years of age and is survived by a young widow.

### C. T. Hannaford.

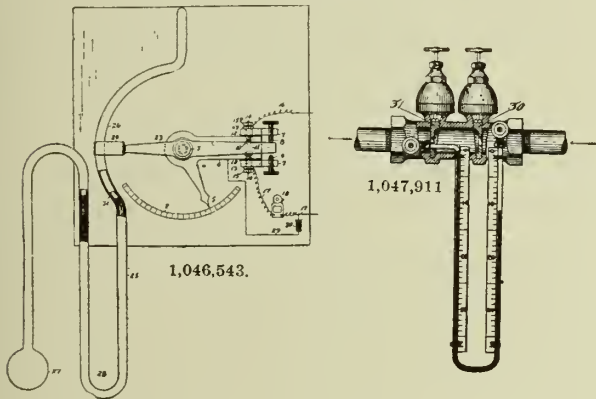
Charles T. Hannaford, a former alderman and a well-known master plumber of Lynn, Mass., died suddenly at his home in that city on the morning of January 21 in his seventieth year. Death followed an attack of grip, but was primarily due to heart trouble. Mr. Hannaford located in Lynn about 35 years ago, during all of which time he followed the plumbing trade. He had served in both branches of the city government of Lynn and was prominent in political and fraternal circles. A widow, one daughter and two sons survive.

# Patents

## Heating Department.

1,046,543. Thermostat. David Beatty, Berkeley, Cal. The combination of a closed vessel, a tube leading therefrom formed with a trap, air contained in said vessel, mercury in said trap, a float in said tube supported by said mercury, a movable magnet outside said tube, but in proximity to said float, a pivoted arm connected to said magnet, an electrical contact carried by said arm and a conductor with which said contact is adapted to contact, said conductor being movably supported co-axially with said arm.

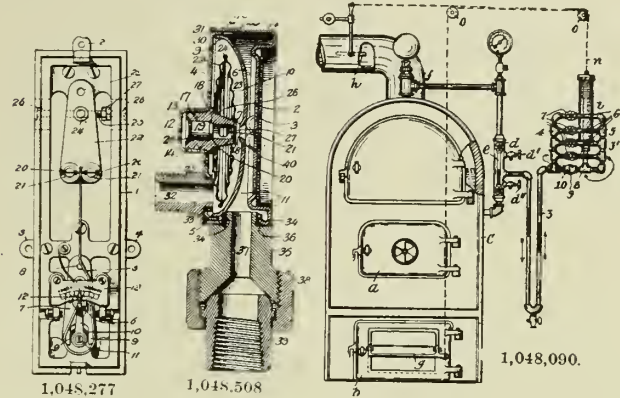
1,047,911. Meter for Steam, Air or Other Gases. George Hale Barrus, Brookline, Mass. A meter for steam, comprising a chamber through which the steam to be measured passes, a diaphragm in said chamber having an orifice therein, a U-tube manometer containing a column of water in each leg supplied by condensation, the column of water in the low-pressure leg being an unbroken continuation of the column of water in the high-pressure leg, the ends of said manometer being connected with the chamber through which the steam passes at opposite sides of the diaphragm and a reservoir between the said chamber and the low-pressure end of the manometer.



1,048,277. Thermostat. David E. Belden, Auburn, N. Y., assignor to the Jewell Manufacturing Co., Auburn, N. Y., a corporation of New York. In a thermostat, the combination with a main supporting frame, of a thermostatic element movably secured to the frame, and provided with an electric contact device, a part movable with respect to the frame, contacts carried thereby co-operating with the contact of said thermostatic element, a main adjusting device operatively connected with one of said movable parts for causing the thermostat to operate at different predetermined temperatures, and an auxiliary adjusting mechanism connected with the other of said movable parts, for adjusting the same with respect to the frame to harmonize the instrument with thermometric indications.

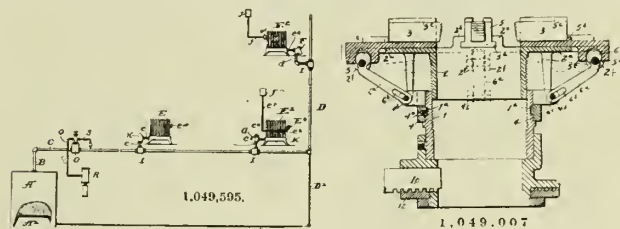
1,048,508. Air Valve. Clayton Aubra Dunham, Marshalltown, Ia. The combination with an outer casing having a discharge aperture formed therein and an annular inturned shoulder surrounding said discharge aperture, a nipple having a soldered connection with said shoulder, a cover having a flange extending into said casing and

secured to the inner wall thereof, and an inlet aperture having an inwardly extending annular shoulder surrounding said aperture, a nipple having a soldered engagement with the shoulder of said inlet aperture, a valve plate provided with a discharge aperture and a valve seat, and having its outer margin flanged and fastened to the flange of said cover, a nozzle mounted on said cover and provided with a filling aperture, means for closing said aperture, and an expansion chamber between said cover and valve plate secured to said nozzle and inclosing the inner end thereof.



1,048,090. Damper Regulator. Hugo Munzer, Paterson, N. J. In combination with a boiler, a furnace and a damper for the furnace, a damper-regulating fluid-motor, having its moving element operatively connected with the damper, a fluid conductor leading from the boiler to the motor, comprising differently elevated tubular branches situated between the boiler and motor, and containing a liquid between the boiler and said branches, a cut-off valve in each branch, said conductor having a return by-pass extending around said branches, and a check-valve in said by-pass opening away from the motor, substantially as described.

1,049,595. Steam-Heating Apparatus. Eugene F. Osborne, Chicago, Ill., assignor to Osborne Steam Engineering Co., Chicago, Ill., a corporation of Illinois. In a



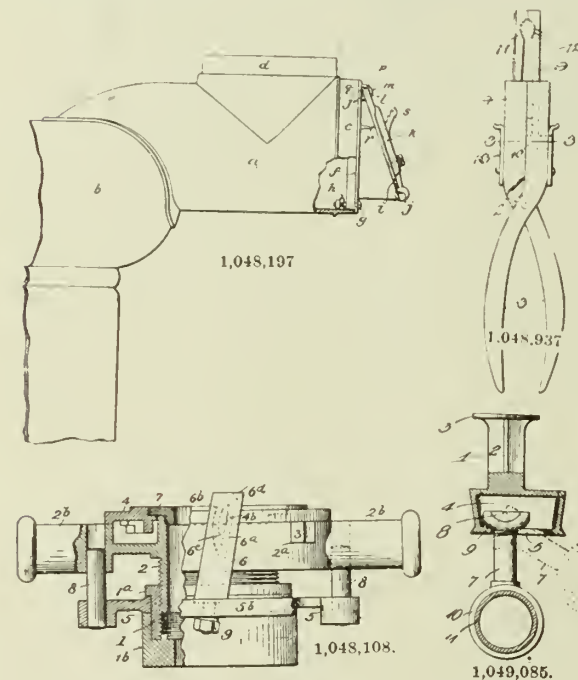
steam heating system, the combination with a steam distributing pipe, of a source of displacing agent, a pipe leading from said source and discharging into the system, a casing located in said last-mentioned pipe provided with a port through which said displacing agent passes, and provided on opposite sides of said port with seats, two valves, one co-operating with one seat and the other with the other seat of said port, a thermostatic device responsive to the heat of the system connected with said valves and acting to move one of the valves off of its seat and to seat the other valve, and a spring acting against said thermostatic device.

1,049,007. Die Stock. Russell B. Tewksbury, Cleveland, Ohio, assignor to the Oster Manufacturing Co., Cleveland, Ohio, a corporation of Ohio. In a die stock, the combination of a tubular work holder, a tubular die carrier which is movable radially and longitudinally with respect to



the work holder, a ring which is rotatably mounted upon the work holder, but is held against longitudinal movement thereon, dies radially movable upon the die carrier, cams pivoted to the die carrier—one for each die, a shoulder rigidly fixed to each die and engaging the associated cam, and means connecting each cam and said ring whereby the cams will be rocked as the die carrier is moved endwise into the work holder.

1,048,197. Smoke-Pipe Connection and Check Damper for Heaters. Louis J. Mueller, Jr., Milwaukee, Wis., assignor to L. J. Mueller Furnace Co. Milwaukee, Wis., a corporation of Wisconsin. The combination with a smoke hood having an opening in one end and an opening in the upper side thereof for interchangeable connection therewith of a smoke pipe and a check damper, of a damper frame interchangeably fitted to said openings and having an inclined damper seat and means at the higher and lower sides of said seat for hinging the damper to the frame, and a damper adapted to be detachably hinged



to said frame at either the higher or lower side of said seat and to be closed by gravity against its seat in either position of the damper frame.

1,048,937. Pipe Wrench. Walter J. Brightwell, Kilgore, Tex. A device of the character described, comprising a pair of crossed pivotally connected levers, jaws removably secured in longitudinal slots formed in one end of said levers, lugs formed on one end of said jaws, and spring members provided with openings to receive said lugs mounted on the levers, said spring members adapted to hold the jaws in position.

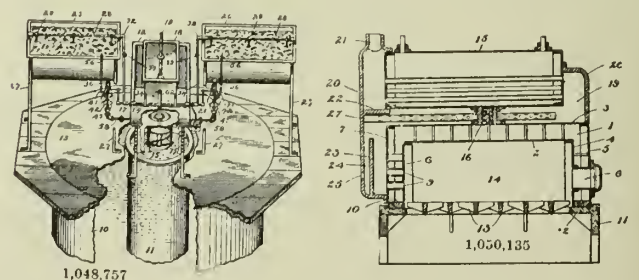
1,048,108. Die Stock. Russell B. Tewksbury, Cleveland, Ohio. In a die stock, the combination of a tubular work holder adapted to be clamped upon the work, a tubular die carrier which is rotatably and longitudinally movable relatively to the work holder, radially movable dies mounted upon the die carrier, a cam plate rotatably mounted upon the die carrier and engaging with the dies to control their position, a ring which is rotatable upon the work holder in unison with the carrier, but has no longitudinal movement relative to the work holder, a templet bar fixed to said ring and extending therefrom

longitudinally forward, which templet bar has on its inner face an endless guideway having two branches which extend in a general forward and backward direction and are connected at their front and rear ends, a lug which projects laterally from the cam plate and engages with said guideway, and means whereby the cam plate may be turned independently of any movement of the die carrier and work holder for the purpose of adjusting the dies for work of different diameters, and without withdrawing the lug on the cam plate from its engagement with said guideway.

1,049,085. Pipe-Hanger. John A. Healy and James H. Healy, St. Paul, Minn. A pipe-hanger comprising a member provided with a socketed portion having a T-shaped slot, a pendent member having a head which is approximately square in transverse section and provided with a rounded under side, said head adapted to be received within the slot of the socketed member when the body portion of the pendent member is disposed at an acute angle to the plate of the edge of the slot, said socketed member adapted to retain the said pendent member when the axis of the body portion of the pendent member is approximately vertical with the plate of the slot, the parts being so proportioned that the pendent member may have slight swinging movement while confined with relation to the socketed member, and a ring carried by the pendent member for supporting a pipe section.

1,048,757. Water-Softener. Frederick M. Strong, Indianapolis, and James W. Ferguson, Richmond, Ind. The combination, in a water softener, of a solution tank, a mixing chamber, an outlet pipe leading from said tank, an inlet pipe communicating with said mixing chamber, and a valve connecting said pipes comprising an adjustable fluid containing chamber, a slide-valve for controlling the flow of fluid thereinto, a slide-valve for controlling the discharge of fluid therefrom, and means connecting said slide-valves for simultaneously opening one and closing the other.

1,050,135. Hot-Water or Steam Boiler. Frederick W. Hider, Toronto, Ontario, Canada. A hot water or steam boiler, comprising, a portable base and grate, a fire box formed of a double walled casing resting on said base and forming a water jacket and having fire tubes at the rear end, a metal casing inclosing the rear end of said fire box and extending forwardly and supported from the side walls of said fire box, said casing having an opening in the top and a smoke flue at the rear end rising from



the top, a fire tube boiler of shorter length than said fire box supported in the opening in said casing and closing said opening, a pipe connection joining said fire tube boiler to the water jacket of said fire box and forming a water passage therebetween, and a baffle plate projecting inwardly from the rear of said metal casing immediately below said upper boiler and directing the gases of combustion forwardly between said water jacket and said boiler.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1052

CHICAGO, FEBRUARY 8, 1913

Vol. 62, No. 6

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

## EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

## ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

## TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

*Domestic Engineering* says: If there is something to be gained by publicity for the politician, how much more is to be gained by publicity for the plumber, a useful member of society.

## SALESMANSHIP AND THE PLUMBER.

**D**OES the Plumber make the most of his opportunities as a salesman?

Has he given the same thought and study to this part of his business as he has to the mechanical side?

If he has not done so, what are the possibilities if his ability as a salesman is more fully developed?

Many of the brainiest men in the trade have given serious thought to these questions, and some have accomplished wonderful results as they have expanded their business along these lines.

But the number of these men who have made a serious study of the possibilities in their business is woefully small. So small, in fact, as to bring forth the remark, at times, "He's not a salesman, he's a plumber."

There are some manufacturers who feel it necessary to keep a large force of salesmen in the field calling on the ultimate buyers, selling their lines **for the plumber**. These salesmen are a heavy expense, their sales necessarily limited, and the cost of keeping them on the road must indirectly come out of the plumber's pocket.

These manufacturers say, and with good reason,

"We've got to send out our own men, for the plumber will not otherwise get the business of his own accord in enough cases to pay us."

After a sale of this sort is made the plumber may get the installation and a small per cent on the goods.

Had he sold the whole job himself, his profit would be much better, and the experience would give him confidence as a salesman.

There is no good reason why the plumber should not give the same attention and study to the principles of salesmanship as any merchant, insurance man, real estate salesman or the business man in any line. Can you think of any?

A good sign of advancement in this vital subject is the recent attitude of several of the state associations. The Illinois Master Plumbers' Association, at considerable expense, secured for a lecture at the convention at Springfield last week Dr. Stanley L. Krebs, of Philadelphia, who talked on "The Practices and Principles of Salesmanship."

His lecture was of the forceful kind that will be long remembered by all who heard him. His thoughts put before the plumbers the fundamental principles on which any man must build to succeed in any measure in selling.

The advertising of the plumber was given full consideration. His problems and his possibilities as a salesman and advertiser were fully discussed. Notes of his lecture appear in the convention report in this issue.

Such talks as this before the state and national associations will do more to make business men of the members than anything else that can be devised.

Local associations can profitably follow the example of the Illinois State Association and secure good speakers on this and similar subjects that will repay many times over all that it will cost.

It may interest many of our readers to know that we will print three more articles on "Salesmanship and Advertising," by Dr. Krebs, continuing the article which appeared in our New Year's number, and which received so much favorable comment. These articles will appear in early issues. Look for them.



# Ritz-Carlton Hotel, New York City



The Ventilation of This, One of New York's Most Famous Hostelrys, Is Described on the Following Pages. The Latest Methods Are Used.

# Ventilation Equipment of Ritz-Carlton Hotel

Hotel Ventilation Has Become a Fine Art. The Ventilating Engineer Has Made This a Model Worthy of Emulation

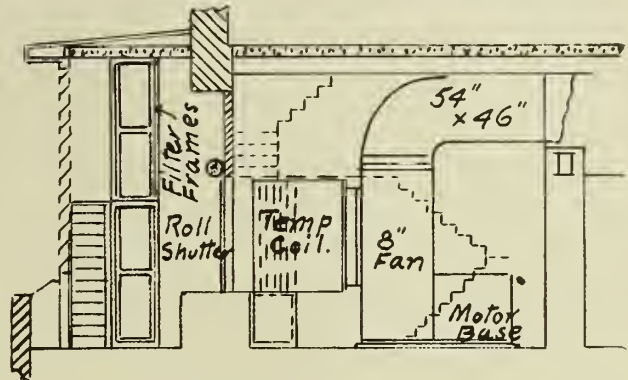
IT was the intention, when the original Ritz-Carlton Hotel was planned, to erect it on an L-shaped lot fronting on Madison Avenue and Forty-sixth street. This plan was altered also to take in a frontage on Forty-seventh street. Consequently there are really two buildings—the Ritz-Carlton Hotel of the original plan and the Carlton House.

The ventilation apparatus is designed to provide for fresh cold air supply to the boiler-room, engine-room and ice machine room in the sub-cellar, and for fresh tempered air supply to the locker rooms, servants' dining room, laundry, etc., and for the grill cafe, lobby, restaurant, banquet room and smoking room, mezzanine floor. Exhaust ventilation is also provided for these rooms and for the toilet and bath rooms on all the floors by means of exhaust fans located in the attic.

The fresh air fans are located in the blower room on the entresol floor, except the boiler room blower, which is located on the engine room mezzanine.

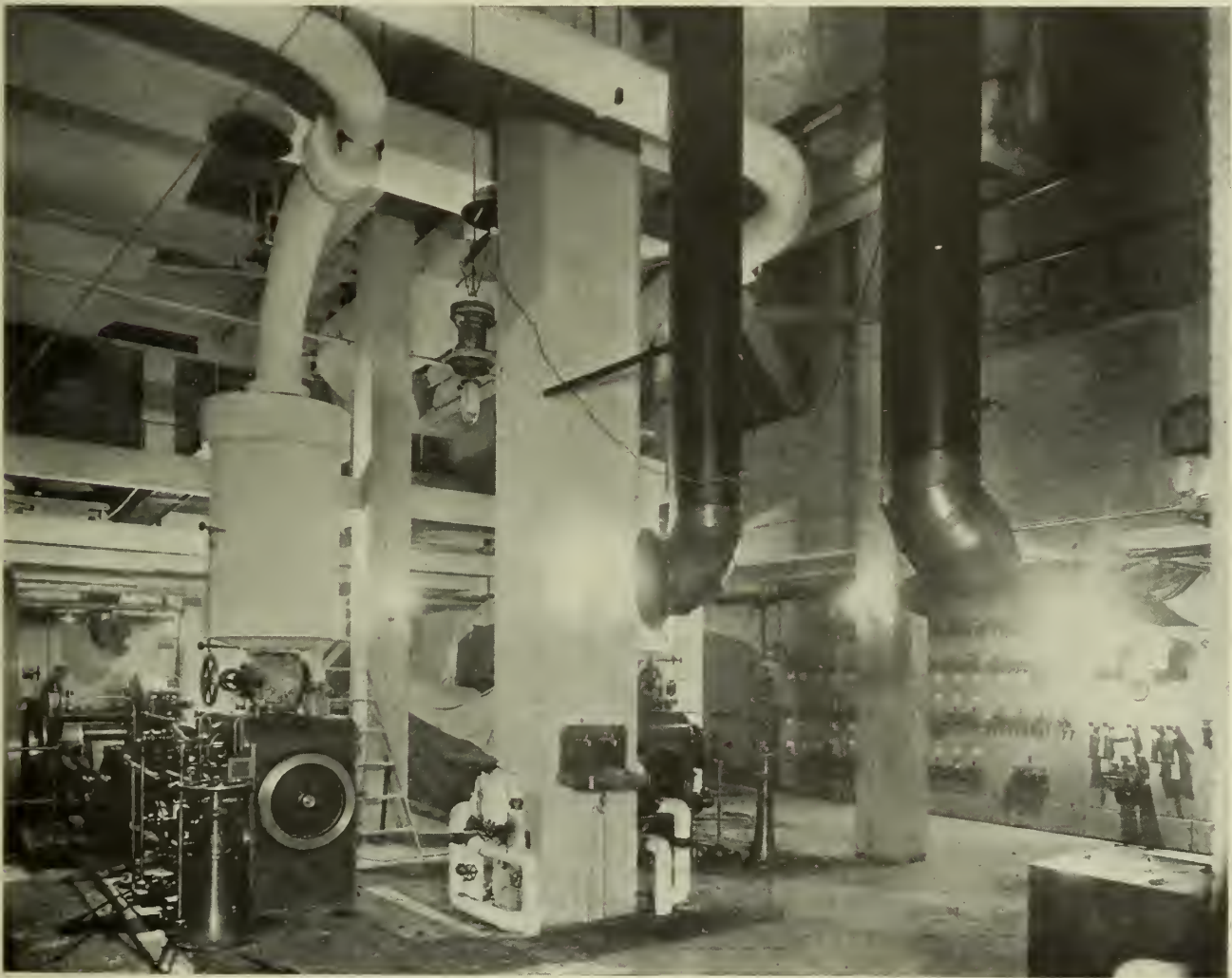
There are four blowers installed as follows: One which serves the boiler, pump, engine and ice machine rooms,

and engine room mezzanine. This blower has a blast wheel several feet in diameter by four feet wide at inlet, the height of the blower over all being twelve feet. It



Elevation of Main Fan Room, Looking North.

is capable of delivering 40,000 cubic feet of air per minute when running at a speed of 225 r. p. m.



Engine Room, Ritz-Carlton Hotel.





Two of the blowers serve the various rooms on the service floor, including the kitchen and pantries. These blowers have blast wheels five feet in diameter by three feet wide at inlet, with a height over all of nine feet six inches. They are each capable of delivering 12,000 cubic feet of air per minute at a speed of 285 r. p. m.

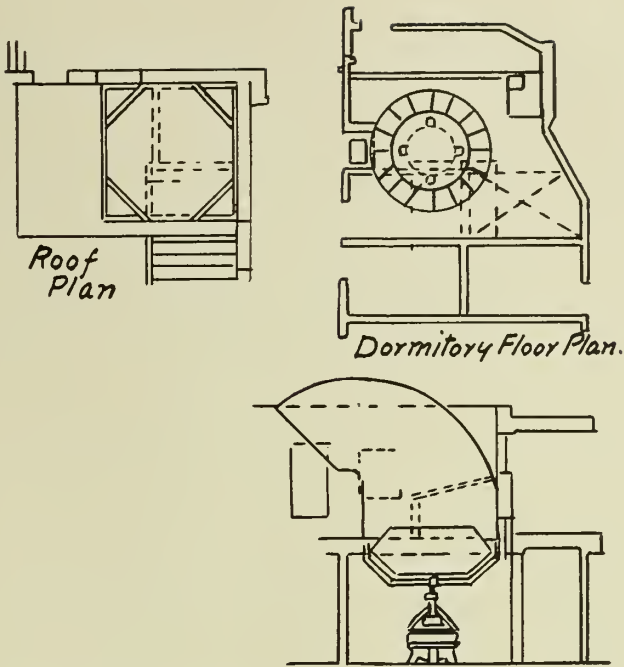
The other blower serves the grill room, banquet room, restaurant, palm court lobby, smoking room and minor rooms on ground and entrance hall floors. It has a blast wheel eight feet in diameter, by four feet wide at inlet and has a height over all of thirteen feet six inches. It delivers 35,000 cubic feet of air per minute at a speed of 180 r. p. m.

The fans are provided with top horizontal discharge to suit the connections to the duct work, tempering coil and fresh air chamber. They are encased in full steel plate housings, and are connected to motors of the multipolar type.

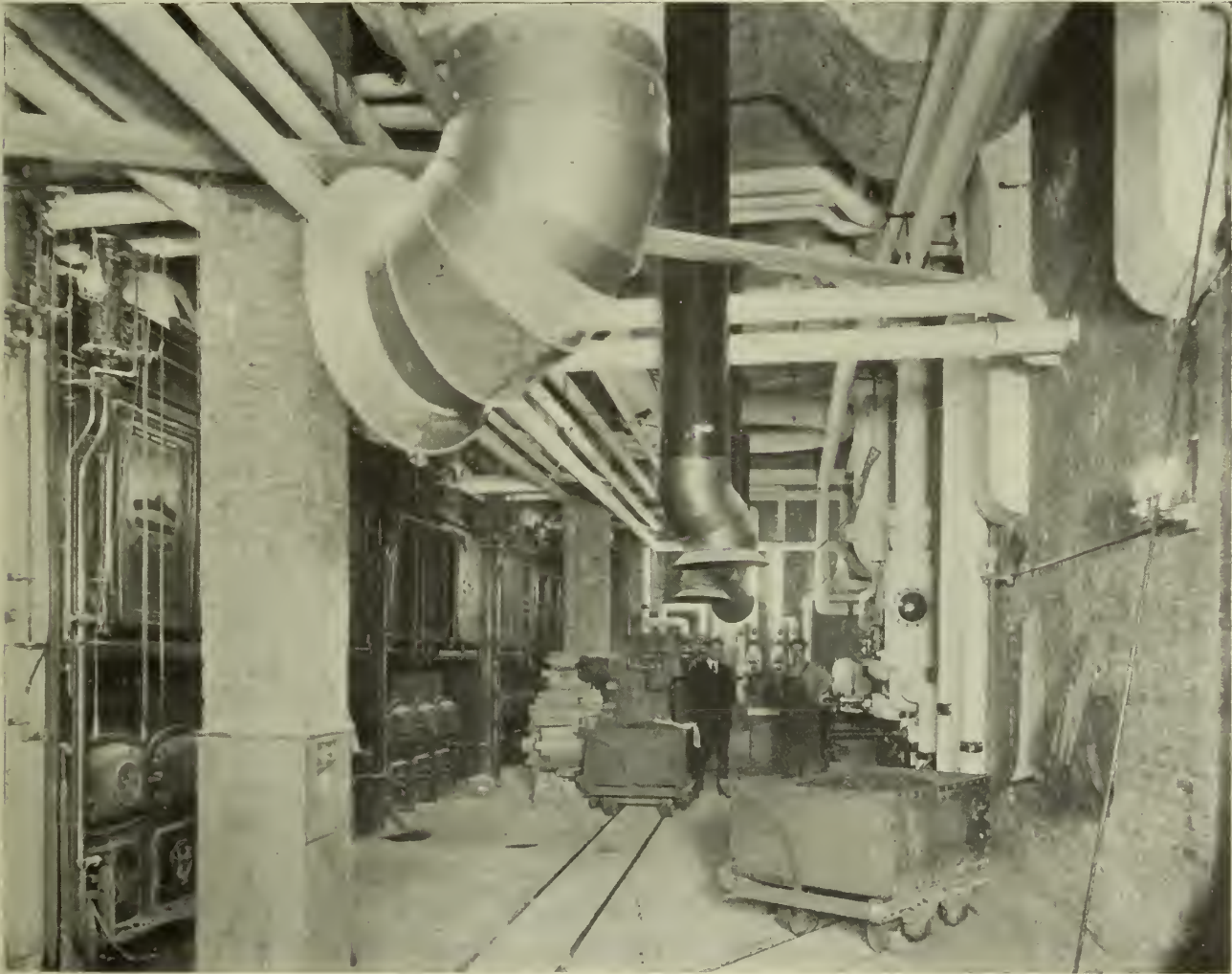
The motors are provided with regulating devices allowing three variations of speed, ranging from two-thirds to full speed.

The tempering coils are made up of three corrugated sectional base heaters, containing 12,000 feet of one inch pipe.

The heaters are jacketed in steel plate of No. 10 gauge and stiffened at corners with angle iron. These jackets extend from the tempering coils and are connected with the inlets of the fans which they supply.



Plan and Elevation, Showing Arrangement of Cone Fan and Discharge Cap for Toilet Ventilation, etc.

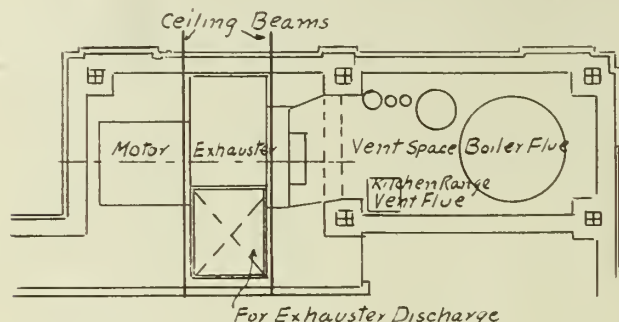


Boiler Room, Ritz-Carlton Hotel.



The exhaust fans are four in number and are located in the attic. Two of these are the multivane type and two of the cone type.

One of the multivane type exhausters, with a wheel 76 inches in diameter and a height of 11 feet, exhausts 70,000



Guests' Laundry Floor Plan, Showing Location of Exhauster for General Ventilation.

cubic feet of air per minute at a speed of 175 revolutions, from the boiler and engine room floor, and mezzanine, store room floor, kitchen and grill floor, first floor and first floor mezzanine.

The other multivane exhauster serves the kitchen ranges, soup-kettles, steaming pots, etc. It has a wheel



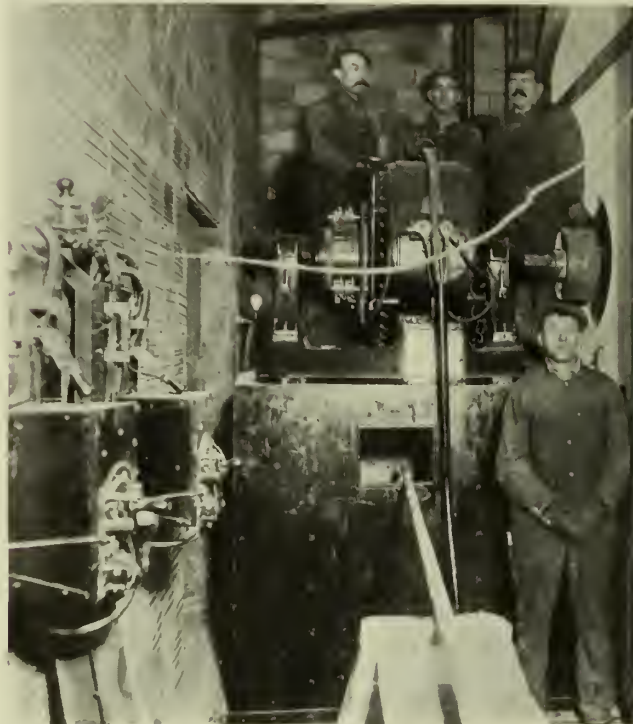
Forcing Out Impure Air.

The other fan, with a 90-inch wheel, exhausts 33,000 cubic feet of air per minute, at a speed of 200 r. p. m. from toilet and bath rooms, kitchens and laundries throughout the Carlton House.

The ducts and flues are built of the best bloom galvanized iron suspended by galvanized iron hangers and are designed with curves and bends so as to secure an easy flow of air.

No. 10 black iron is employed for the exhaust ventilating ducts from ranges, boilers, etc., connecting the hoods with the vertical vent shaft work.

The branch ducts leading to and from individual flues



Taking in Fresh Air.

are provided with dampers and quadrants indicating their position. Deflectors, with permanent adjustment, are also provided where required.

#### NEWS FROM OHIO.

Akron.—The firm of C. H. & L. O. Benner, 368 S. Maple Avenue, is enlarging the steam plant of the Akron Pure Milk Co. The work amounts to \$1,200.

Fred J. Tausch, 660 Sherman Street, is doing plumbing and heating for Prospect Motor Co., 55 Prospect Street.

Lima.—The city council, at a recent meeting, has created the office of city plumbing inspector without a dissenting vote. The law provides that the inspector must be a plumber of at least seven years' experience. A number of applications for the position have been received.

Columbus.—J. B. Youngblood, chief mechanical engineer of the Ohio Board of Administration, has reported the installation of an entire new heating system at the institution for the blind in Columbus. The cost was in excess of \$15,000.

Considerable opposition has developed all over Ohio to the new state building code, which has been effective more than a year. A determined effort will be made to have the law amended at the coming session of the Ohio General Assembly.

41 inches in diameter and 6 feet 6 inches high, which exhausts 14,000 cubic feet of air per minute at a speed of 285 r. p. m.

Of the cone type exhausters, one is employed for the toilets and bath rooms on the bedroom floors and roof laundries. This fan is ten feet in diameter and exhausts 50,000 cubic feet of air per minute at a speed of 175 r. p. m.

# The Cause and Detection of Water Waste

WE used to think the water supply as plentiful as the air supply. We gave no more thought to water dripping from a faucet not in use than we did to the breath we exhaled. We didn't know that a drip 1/32 of an inch in diameter, estimated on the present meter value of water, represented in a year the loss of \$11.68. We let our faucets drip, let our pipes leak and gave no heed. There was plenty of water.

However, as population increased, water consumption increased and water supply decreased, and more and more it became necessary to seek new sources of supply, to build new reservoirs. Water famine reared its ugly head. Then we recognized that water should not be wasted and that where waste continued there must be compulsory conservation. City authorities forced property owners to put meters in their buildings with a view to decreasing waste by penalizing the owner for allowing waste. He paid the penalty in the form of an increase in his water bill.

The property owner pays for water waste in two ways. He pays in the form of a higher tax rate, for new watersheds, reservoirs, tunnels and pumping plants which are necessary to meet the demands caused by waste, and he pays for the waste in his water bill.

Take New York City, for example. Thanks to its prodigal water waste, taxpayers must pay \$260,000,000 for a new system of supply, \$10,000,000 more for a tunnel to carry it from the reservoirs and the constantly mounting cost of the upkeep of the system. When the time comes for the distribution of the new supply, new pipes must be laid in the city streets, for the old pipes will be unable to withstand the pressure. Likewise, new pipes must be laid in the buildings. And the taxpayer will see the cost of the new city mains reflected in his tax bill and will give the plumber more money for putting new pipes in his building.

If New York's water supply had been properly conserved, storage reservoirs, built at a cost of \$50,000,000 or \$60,000,000, would have furnished a sufficient supply, even though two years passed without a rainfall.

But even with the precautions which have been taken, the waste is still going on, and it is to the interest of all taxpayers, unless they wish to give up another half billion a few years hence, to make it their individual business to see that there is no waste of water in the premises which they own or occupy.

While it is held that all property using water should be metered and that the criminal or neglectful waste will not stop until this is done, it is not the purpose to discuss that subject here. It is intended to bring home to the individual property owner or lessee the fact that he can reduce his expenses and conversely increase his dividends by paying attention to water waste. A leak in a pipe is a leak in the pocketbook.

At the present time in New York all buildings used for business purposes are metered, as are buildings above a certain height used for dwelling places. All other property pays for its water on a frontage basis, that is, the charge is based on the number of front feet in the property and the number of water closets, bathtubs, etc., served. There is no way in which the city can detect the waste of water on premises which are rated on a front-foot basis. The man who pays on a meter basis pays for the front-foot waste because the meter rate is higher. Where the service pipe or trap (the city's pipe)

is an inch or more in diameter the premises are supposed to be metered.

The meter rate, \$1 per thousand cubic feet, averages much higher than the frontage rate, but despite this, proper supervision will make the water bill of the average metered property lower than that of the average front-foot premises. The average consumption of water in a metered apartment house, containing one or two water closets and bath, is 1,500 cubic feet per month per family. This does not include, of course, water used by the house plant for boiler, steam or refrigerating purposes. In a metered tenement house where there are no baths and water is used principally for domestic purposes and toilets the consumption will average 500 cubic feet per month.

In premises used for mercantile purposes the average consumption is difficult to determine, varying with the industry pursued. The same condition obtains in hotels and office buildings by reason of the fact that the occupancy of the rooms and the number of people in them are constantly changing.

In unmetered apartment houses there is a waste, on the average, of fifty per cent of the supply sent through the pipes. This is due to negligence in caring for plumbing fixtures and delay in repairing leaks. The waste caused by leaks in water closets in unmetered apartment houses averages from 14,000 to 20,000 cubic feet a month, or a monetary loss, on a meter basis, of from \$14 to \$20. Underground leaks, overflowing roof tanks and the carelessness of tenants who leave taps running are additional contributors to the volume of waste. Some property owners assert that it is cheaper to let the water waste than it is to pay the plumber's bill. Although they may not realize it, these property owners are paying for the waste in their tax bills, but is it just to those who are paying the higher meter rate that they should also be compelled to pay for the waste caused by the owner who, in his ignorance and greed, says "Oh, let it run, it doesn't cost me anything."

Unless there is a marked increase from month to month in his bill the average owner of metered property is content to pay and take no steps to ascertain if he is getting what he is paying for. Or, perhaps, there is a small increase in his bill for a certain month. He pays no attention to it. The next month there is a still larger increase and he calls a plumber to investigate. The plumber finds a leak. But the owner must pay for the water he has not used. If this owner had in his employ an expert supervisor who knew what amount of water should be used, who could read the meter registrations intelligently and detect leaks before they became a charge on the property, the value of his services would soon become apparent in the decreased cost of maintenance.

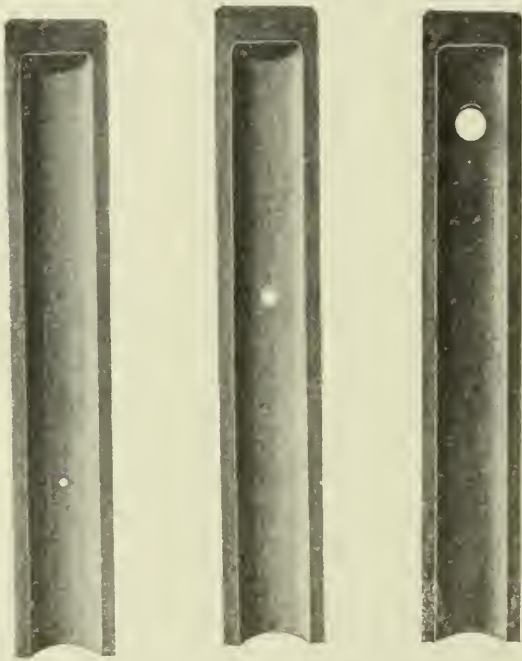
There was brought to the writer's attention a bill for \$900 for water used in seven months in a seven-story metered apartment house, sheltering twenty-one families and including a store. Investigation revealed a leak due to a defective valve in an underground pipe on the house side of the meter. After the valve had been replaced by a new one the water bill for six months' consumption was \$320. Since that time the total yearly bill has been \$740.

In a factory building where the consumption was nearly 33,000 cubic feet per month the owner erected a roof tank to give a better supply to the upper floors. The consumption at once jumped to 110,000 cubic feet a month.



The plumber neglected to put a ball float in the tank and the result was that the extra pressure at night, due to the fact that the supply was not being used, caused the tank to overflow. When the overflow and the cause were revealed, the proper steps were taken to remedy them, and in the next three months the consumption dropped to 33,000 cubic feet per month. The services of the expert cost \$20 or \$30. The owner saved \$77 and guaranteed himself against continuing to pay for water which he did not use.

In a certain hotel the water was used for refrigeration in twelve ice boxes. The consumption was between 150,000 and 190,000 cubic feet per month. The owner called an expert who told him something was wrong somewhere and that a thorough investigation should be made. The owner took no action, but the meter did and



Twenty-four hours of leakage under 45 lbs. pressure in a  $\frac{1}{2}$ -inch pipe through an opening this size equals 432 gallons.

Twenty-four hours of leakage under 45 lbs. pressure in a  $\frac{1}{2}$ -inch pipe through an opening this size equals 4610 gallons.

Twenty-four hours of leakage under 45 lbs. pressure in a  $\frac{1}{2}$ -inch pipe through an opening this size equals 12,960 gallons.

the water bills continued to grow. Finally he ordered the investigation. The expert found that water in a 2-inch overflow was running directly into a sewer. It couldn't do anything else by reason of the construction of the ice machine. A new machine put the consumption where it should be. How did the expert know something was wrong? Because he knew that in the adjoining building, also used as a hotel, a larger building containing more rooms and occupants, and therefore using rightfully more water than its neighbor, the consumption was only 150,000 cubic feet a month in the coldest weather, and in the summer as low as 115,000 cubic feet.

In a certain downtown office building, having an engine room equipment of the highest efficiency, water bills were found to be increasing regularly for the supply used on the upper stories. At the beginning of the expert's investigation the consumption was 15,000 cubic feet a day. He found that a number of toilets on these floors were leaking steadily day after day. His recommendations for the repairing of fixtures were carried out and the consumption dropped to between 7,000 and 9,000 cubic feet a day.

Note that in the instances cited the owner is paying \$1 for every thousand cubic feet of water wasted; also saving \$1 on every thousand cubic feet not wasted.

In another large office building there is a restaurant on the ground floor. The lessee put in an ice machine which was consuming apparently, when the expert was called in to explain why the water bill was so large, 395,000 cubic feet per month. The expert found that the ice machine from 7 p. m. to 6 a. m. was throwing water into a tank which overflowed. The expert showed a method by which this water could be utilized for other purposes than refrigeration and the waste stopped and at the end of thirty days the consumption had been reduced to 135,000 gallons, the lessee was getting greater service from less water and had reduced his bills by \$260 a month.

The owner of a tenement house having outside water closets found his water bills increasing steadily. He called in the expert, who found that defective hoppers, anti-freezing toilets and fixtures in a bad state of repair and general neglect were causing a large waste. In one closet showing a defective hopper the water was running into the ground through a hole in a sewer pipe. The meter was registering 35,000 cubic feet per month. After the proper repairs had been made the registration was from 1,500 to 2,000 cubic feet per month.

In the average metered business building experience has shown that water closets will waste, on an average, from 14,000 to 19,000 cubic feet per month. In a prominent restaurant the water consumption had been between 9,000 and 10,000 cubic feet per month. A leak in a toilet jumped this consumption to 39,000 cubic feet in a month. When it was repaired the consumption returned to the first figure.

The causes of waste are many, and only an expert who is constantly meeting with their variations can determine their exact nature. In a large bread manufacturing plant the consumption, without apparent cause, leaped from 285,000 cubic feet a month to 587,000 cubic feet. The expert called to investigate found that while there were several points of waste the bulk of it was due to the forming of vegetation on an outside condenser used for refrigeration. The growth prevented the water from exercising its normal cooling power on the apparatus, so that more water had to be used to achieve the result that had formerly been brought about with a smaller quantity. The recommendations of the expert were carried out and the consumption reduced to 200,000 cubic feet per month.

The examples herewith cited, all of which are taken from actual records, amply show that the average property owner or lessee is making a good investment in engaging a competent individual or firm to inspect his water supply plant throughout the year; to take full charge of water bills and make repairs to fixtures or pipes whenever they become necessary. The owner or lessee seldom has the knowledge and experience necessary to enable him to ascertain the one or more causes which produce water waste, even if he could spare the time demanded for a thorough investigation. The owner, as a rule, must rely on his agent to detect and correct conditions which cause waste. The agent, for the most part, depends on the superintendent, the engineer or the janitor of the premises, and no one of these three is usually sufficiently versed in the knowledge and experience, without which he will seek in vain for an explanation of why the owner is called upon to pay for more water than he is using.

For example, the average janitor is not an expert reader of water meters. Constant and expert examination of the meter records is one of the most important steps

which must be taken if the water bill is to represent the amount actually used, for many city meters register fast; that is, show more water passing through the building pipes from the street mains than does actually pass through them. It has been proved within the last year that some of the meters installed by the city register from 10 to 136 per cent over the actual amount of water used. Then again the city inspectors, on whose reading of the meter indexes the bill is based, frequently make mistakes in reading the recording instruments. Remember that if the meter reading, on which the bill is based, can be proved wrong, or if it can be proved that the meter is registering more water than actually goes through the pipes, the owner usually receives a rebate. But the average owner does not know how the meter index appearing on his bill compares with the index on the instrument itself. It requires expert knowledge to read a water meter and determine from the reading the conditions under which it is operating.

A most striking example of how difficult it is to locate some leaks, and how thoroughly all means of determination must be employed to get at the truth, is shown by the following instance:

In a manufacturing plant situated beside the water front a certain meter began to register large increase in the amount of water used. The owner told the expert that there had been no actual increase in his consumption. A test of the meter, which was one of several, some of them being connected, showed that it was registering properly. In other words, the amount of water it registered was passing through the pipes. All the other meters and pipes were tested, but the instruments failed to record a leak. Yet the expert felt sure there must be one somewhere. He told the owner to shut off all the water. This was done, but the meter in question continued in operation, still registering a flow at the rate of 31,000 cubic feet a month. All water had been shut off, but here was water running! There was only one thing to do—lay bare every bit of pipe connected to that meter. When the diggers had completed their work, a leak was found on the under side of the pipe. The water was spurting into the river without giving any sign of a leak.—The Real Estate Magazine.

#### NEWS FROM CONNECTICUT.

Bridgeport.—A. E. Roberts has recently completed the plumbing work in two stores and eight tenements on Pembroke Street for C. Eisenman. The plumbing and heating work in a two-family flat building on Connecticut Avenue was recently completed by him for Mr. Bolles. He is engaged now with the plumbing and heating installation in a two-family house for Wm. F. Chatlos on Main Street.

Naugatuck.—Thomas J. Curtin, who has conducted a plumbing business in this town for some time past, has filed a petition in bankruptcy in the United States court at Hartford. He took oath that he did not possess enough money to pay the customary filing fee. His liabilities are listed at \$686 and his assets \$225.

Waterbury.—The Barlow Bros. Co. has secured the plumbing and heating contract in the Williams Sealing Co.'s factory, on Benedict Street; also the plumbing in St. Paul's parish, on Thomaston Avenue.

J. W. Gill is doing the plumbing in a residence for Mrs. Z. Gauthier, on Founsbury Street.

P. R. Rudolph has the following plumbing contracts: Residence of G. Byrnes, on Hamilton Avenue; L. Wolfe, Laurel Street, and S. Bamskas, Francis Street.

## Questions and Answers

### ADVANTAGES OF RAISED REAR VENT.

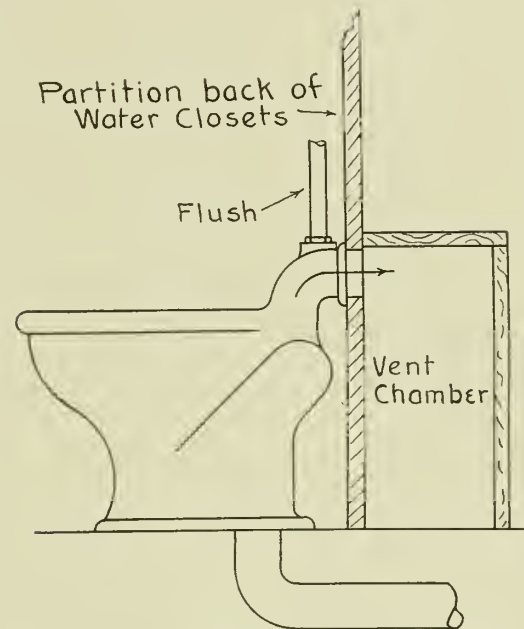
Editor "Domestic Engineering":—Will you kindly show in your next issue, a cut of a water closet having a raised rear vent, and state what advantages it has over other methods of toilet room ventilation?

Springfield, Mass.

"Journeyman."

Agreeable to "Journeyman's" request, we show herewith a cut of a water closet which is provided with a raised rear vent. To tell the entire story concerning the development of local venting would take too much space, but briefly we give the following:

The method of ventilating toilet rooms through registers connected with foul air ducts necessitates pulling the foul air out of the water closets in order that it may reach the registers. This diffusion of the foul air is of course objectionable. Moreover, this system is expensive to operate.



Sketch Showing Raised Rear Vent.

Another and more common method, one largely in use not only in public toilet rooms, but also in residence toilet rooms, is the use of water closets with a short horn of small diameter, coming out from the side of the bowl near the top. To this horn a 2-in. pipe is attached, either galvanized sheet iron, or copper. The objections to this method are numerous. In the first place the size of pipe is inadequate for good ventilation; the connection is seldom tight and often leaks when the fixture is flushed, and furthermore, in the event of stoppage of the water closet outlet, the contents will back up into the ventilating pipe, as the connection is below the top of the bowl. Another objection is that often the pipe must be run exposed to view making an unsightly looking piece of work. All of these objections are generally not to be formed in the use of the raised rear vent.



Reference to our illustration will show that the raised rear vent is so constructed and located that the outlet of the vent is above the top of the closet bowl, and that the opening can be given the maximum area of cross section. Further advantage is gained by the flushing of the vent opening at each flushing that the fixture receives. The raised rear vent is oval in shape, its two diameters measuring  $5\frac{3}{4}$  in. and  $2\frac{3}{4}$  in., which give an area of ample amount. It will be noted that the path for the foul odors is a natural one, and that the vent opening is properly located. The vent generally enters a main vent chamber, in the construction of which there is a wide range. If only a single fixture is to be served, the continuation of the raised rear vent may be a sheet metal pipe.

### A BOILER-HEATING PROBLEM.

Editor "Domestic Engineering":—In one of the recent numbers of your valuable paper there was a problem submitted concerning the heating of a boiler by a heater located on the floor above. Thinking that your readers would find something of interest in a problem that I ran onto a few months ago, of somewhat similar character,

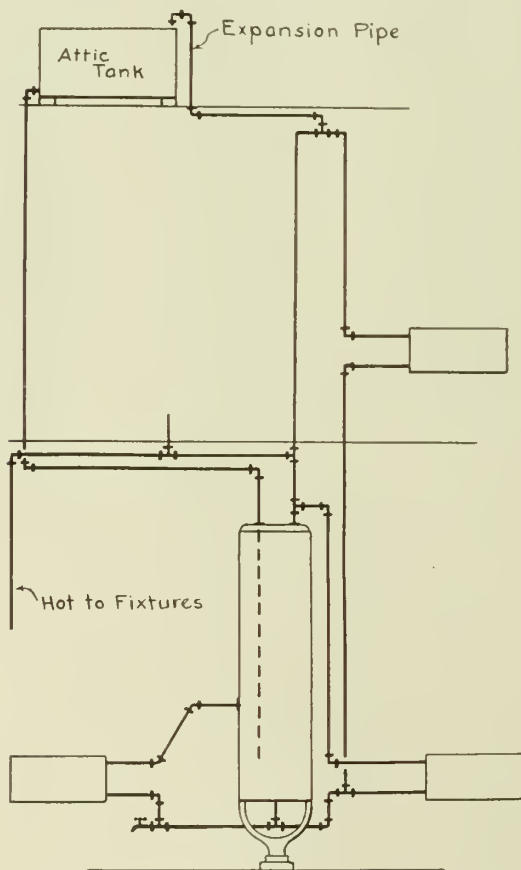


Fig. 1.

I am sending you a sketch of it. The boiler is fed from an attic tank, and heated from three different sources and works right.

Syracuse, N. Y.

"Reader."

In Fig. 1 can be seen the job that "Reader" writes about. We should say that in this particular job conditions are very favorable to getting as good results as are to be expected from a job of this kind. In the first place, it is a tank pressure job, and the expansion pipe, which is al-

ways necessary on such a job, can be depended upon to perform the additional duty of relieving the high point of air, which is one of the great obstacles that will be encountered. As long as this subject has come to the front, we think it will add to our readers' interest and instruction, to show another job which we ran onto some

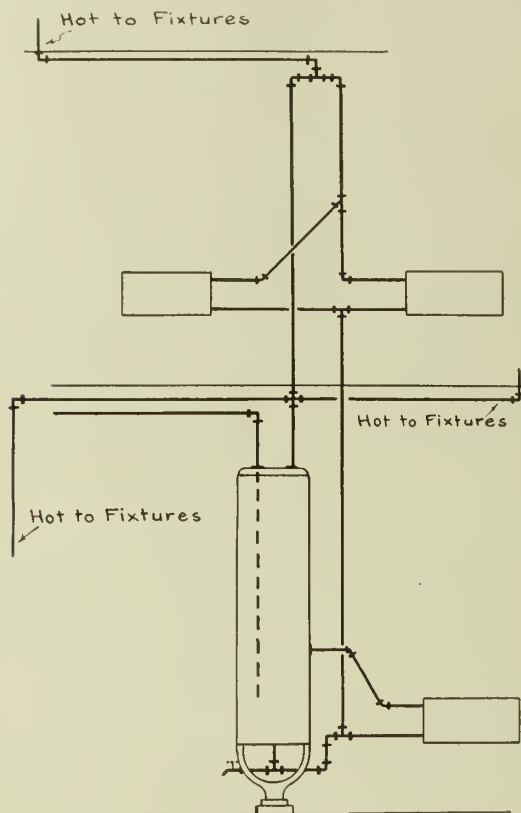


Fig. 2.

time since, of similar character, but different in several particulars.

This job is to be seen in Fig. 2, and while three sources of heat are employed, only one is on the first floor, the other two being on the floor above the boiler. It is direct instead of tank pressure, and therefore the use of a supply connection from the high point will relieve air-lock just as the expansion pipe does in Fig. 1.

So far as we know the work gives very good results.

### NEWS FROM RHODE ISLAND.

East Providence.—Frederick W. Cady has been reappointed as Inspector of Plumbing for the town of North Providence. Mr. Cady also holds the offices of Inspector of Buildings and Inspector of Drainage.

Providence.—Pawtucket plumbers have started a move for a state plumbing law modeled after the Massachusetts statute. It is claimed by the advocates of the plan that the passage of such a law would increase the efficiency of the plumbing trade and make it impossible for inferior workmen to secure positions. The passage of the bill is urged by the plumbers on sanitary and hygienic grounds also.

Augusta, Ga.—The plumbing and heating contracts for the following new buildings in this city will soon be awarded: The new city hospital, the medical college building, a ten-story office building and a ten-story hotel building.

# Opportunity—A Talk to Iowa Plumbers

By Adolph Mueller, Before Iowa Master Plumbers' Association, at Sioux City, Iowa, January 15, 1913

"Master of human destinies, am I!  
Fame, love and fortune on my footsteps wait,  
Cities and fields I walk; I penetrate  
Deserts and seas remote, and passing by  
Hovel and mart and palace, soon or late,  
I knock unbidden, once, at every gate!  
If feasting, rise; if sleeping wake, before—  
I turn away. It is the hour of fate,  
And they who follow me  
Reach every state mortals desire  
And conquer every foe, save death.  
But they who hesitate in doubt,  
Condemned to failure, penury and woe,  
Seek me in vain and ceaselessly implore,  
I answer not, and I return—no more."

THIS little verse from the pen of the late John J. Ingalls, scholar, soldier, statesman and orator, probably has been quoted and reprinted oftener than any equal number of lines during the past twenty-five years. And yet, it is not true. It is beautiful, and its beauty is so marked that it dethrones the analytical power and enforces its specious argument upon the unthinking mind.

If this poetic fancy were true you could count the successful men on your fingers. Opportunity comes more than once. It is knocking at our doors all the time. It is not the fellow answering once that wins—it's the fellow who answers every time he hears a "rat-a-rat." He is the man who "reaches every state that mortals desire" and "conquers every foe." And he is no extraordinary fellow either. Just a plain, everyday citizen, wise enough to seize every opportunity and turn it to his own advantage. It is the many times he does this that puts him head and shoulders above the crowd that gave up because they did not heed the one knock and are now devoting their time to "ceaselessly imploring" another chance.

Forget the chance you missed and make up your mind not to miss any more. Don't cry over the spilled milk of opportunities. If we all made a business of doing this another ark would be necessary to float out of the flood of tears. Life is opportunity. We got this word from the Romans. It means "near port," "close to haven," and is an invitation to see something better than the position you have. Even when you face hardships and disaster have the courage and enthusiasm to grasp an opportunity. Grab it—even if it is small—it will lead to a bigger one. Opportunities of advancing and doing good are always with you. Our power and our worth will always be proportionate to the industry and perseverance with which we make the right use of the ever recurring minor occasion whether for becoming good or doing good.

The disbelievers in opportunity are voluble with excuses. They can't meet it, they have no leisure, they have not the means. Any or all of these are given as an explanation of their failure to do what they should have done—grab the opportunity. Have a definite aim and purpose and opportunities will come so fast that you will find yourself climbing to your ideals with surprising rapidity.

Get the habit—that's all you need. I did not come here to sermonize, to lecture, or to tell how to do a thing, but I believe that all of us are better business men and better citizens if we occasionally take stock of ourselves and see whether we are measuring up to our

talents: to learn whether we are brave men in upholding and battling for the truth and our rights, or cowards in falling below what is our right in this world of bustle and business.

A man may be a hero physically and a coward morally, or he may be a hero morally and a coward physically. To do your duty either physically or morally requires courage, and you must have moral courage to be a successful business man. You must determine a policy, ideals and aims, and live up to them, stand up for them and fight for them.

If you don't do this you are not grasping and getting the most out of your opportunities.

Did you handle your opportunity right when you gave John Smith credit for a big plumbing bill, knowing he was not good pay? You had to pay your men and your material bill. Was it lack of moral courage which prevented you from saying, "I want your work, Mr. Smith, but must have some positive assurance of getting my money." What if you had lost the job? It would have been better to have lost it than to hold the sack.

It's my business to find out about men's financial standing and to pass on credits for my company. When it's necessary to refuse we don't do it maliciously. We show the customer a reason and do our best to help him improve his credit. Once in a while a man gets offended at us, but most of them thank us and become our friends. We have to do it. We could not do business if we did otherwise. The plumber must do it too, if he is to prosper. Don't be afraid to tell a man, who is known as poor pay or a cheat, that you must be secured.

Did you measure up to your opportunity when a citizen entered your store and asked prices on tubs and lavatories? Did you tell him a tub could be bought for \$15.00 or as high as he wanted to pay and let it go at that?

Or did you tell him why one tub was cheap and another high priced, explaining something of the process of manufacture, of enameling, of patterns, of advantages, etc. If you did the former the chances are the citizen left unimpressed. If you did the latter, showing him you were familiar with the subject, he left you impressed, and the chances are, studying over the question of which tub to buy. Instances like these are opportunities of salesmanship. You should be sufficiently informed on processes of manufacture to make the most of them. Suppose you went into a drygoods store and were told silk was worth 75 cents to \$3.00 a yard, what would you do? Why, you would go out saying that salesman did not know his business. He had not told you anything but the price. What you wanted to know was why one kind of silk cost 75 cents a yard and another \$3.00. The price indicated that \$3.00 was better than 75-cent silk. But why? That's what you wanted to know. That's what your customers want to know about your goods. You can make sales, you can arouse interest, you can convince, if you know all about your goods and grasp your opportunities.

Are you equal to your opportunity when a customer says brass goods are high in price? Do you say "that's so," or do you say, "Yes, they do seem so, but you know that copper is a large part of brass, and copper



in a raw state is high priced. You can see this for yourself in the daily market quotations. Then the other parts of brass—lead, tin and zinc, are costly. They must be mixed together, moulded and machined by expert workmen. Each article must be handled many times before it is completed. Therefore you can understand that brass goods in reality are not high priced, but are very reasonable in price." If you make this explanation it's a hundred chances to one you will win your case. Customers don't stop to think of these things. You must think of them, and tell them.

In this connection I would like to say incidentally that we are always pleased to have plumbers call on us and go through our factory. We want you to do it. It will give you a better insight into brass manufacturing. You will understand the process better and be in a better position to talk to your customers. This not only applies to our line of goods but to all other lines of goods which you handle. Whenever you have an opportunity to personally investigate the methods of manufacture of goods you handle, do so by all means.

And so on through the piece. The opportunity is constantly before you and it's up to you to meet it, to make the explanation necessary to clear away doubt. To do this you require knowledge of the goods you handle. You must be able to tell why good goods are superior to cheap goods. Why a certain pattern is better. Why guaranteed goods with the maker's name are a safe investment. Why nondescript goods are a poor investment. In fact you must study and learn to apply the elementary principles of salesmanship. When you have done this you will come nearer than you ever have in your life to being a successful plumber. You'll come near to it, you'll be a successful plumber.

There isn't a manufacturer in the United States who would keep a salesman on the road if he did not know and could not talk his line of goods. We would not. And we don't want our salesmen to tell you anything but the truth. That's our policy. A salesman who goes beyond that ceases to be a salesman, he is a cheat, falsifier and not worthy of confidence. There are other opportunities for your betterment which can be best worked out through organizations. There is the opportunity of contracting direct with the owner and not through a general contractor. Why should the plumber be the tail of anybody's kite? You are business men, you are competent, you are capable, and you should wherever possible do business at first hand. There is no good reason why you should have someone standing between you and the man you are actually working for. Here is a great opportunity for the plumber. Your portion of every building is the most important portion of the work. Nothing else equals it. Without your skill no big building of today would be inhabitable. Absolutely there is no work of equal importance to yours. If it were not for the highly developed state of the plumbing trade today there would be no Metropolitan Tower and no 55-story Woolworth building towering above all other buildings in the world. Does not that suggest to you something of your importance, of the great need of you in the world, of the great opportunities before you, of your right to contract direct and not through someone who may not know the difference between a sill cock and a bath cock? It is a question entitled to your serious consideration. It's an opportunity to meet and you should meet it right.

There are other opportunities to which I have referred in previous addresses to plumbers, and it's not necessary to go into details regarding them now, but

they are worth remembering. They are all up to you. When it's all said and done the man himself is the final summing up of the case.

Among the opportunities that are knocking at your door are these:

Being better men in a moral, business and technical sense. Improvement by studying literature bearing on your trade. Square business competition and square dealing with your trade. Insistence on a fair living profit. Better business methods, shop systems and a thorough knowledge of figuring into your estimate a legitimate overhead expense covering such costs as do not manifest themselves in material used and labor actually expended. Elevating your calling to a higher standard through individual and combined efforts. Urging the use of materials of recognized excellence. Submitting all estimates and figures in writing. Making out your bills the first of each month and collecting them.

There is your opportunity of knowing about your costs—the most vitally important of any which confronts you in your business. Without this knowledge you can't hope to be successful. It's an opportunity you must not let slip by. Don't accept cost as what your material and your labor represent with 10 or 15 or 20 per cent added for profits. That's only part of your cost—the visible part. There is the intangible part with which you must reckon if you are to make a profit on your work. That intangible portion is known today as the "overhead." It embraces the salary of your bookkeeper and salesman, freight, drayage, delivery, insurance, interest, taxes, and all such items. They are a positive part of your costs, and every sale you make and every job you do should have its legitimate portion of this cost added to it. If it has not you are not making money on the sale or job. If you do not add it you are neglecting an opportunity.

Just what per cent of your costs is represented in this overhead expense may vary according to locality and conditions, but it has been conservatively estimated at 20 per cent. It is present in every business, big or little, and it must be recognized and reckoned with just as certainly as you recognize and reckon with your visible costs.

Here is another opportunity that you plumbers should grasp—that of a systematized method of cost accounting. You might not be able to do this as individuals, but you can do it as an organization. I don't believe you Iowa plumbers could do a wiser thing than to employ an expert to devise such a system, a sort of a general system with sufficient elasticity to apply effectively to the smallest and largest plumbers in the state. He could do this by studying the basic principles underlying the plumbing business, and harmonize the conflicting conditions of localities, so that you would have a general rule to follow. Now don't think that an expert who has neither practical knowledge of, nor technical training in, the plumbing business can't do this. He can, and I know it from experience.

As manufacturers we thought we knew all about our costs and all about our business. That was one point we were proud of—maybe a little bit "swelled up" or "stuck on ourselves," as the slang of the day goes. But we finally put an expert systematizer to work in our factory and again resorting to slang, "he showed us" that there were a heap of things about our business that we did not know. And just as it will develop in your business, it developed in ours that it was the common little things that we had been overlooking. Things that we were taking for granted just because someone had

said that they were right and they had grown into regular everyday practice. We are not the only manufacturers who were compelled to have our eyes pried open by an efficiency expert. The Studebakers had to do it, the National Cash Register had to do it, and hundreds of others besides. And I say as a state organization you ought to do it for the benefit of the trade throughout the state. You will find it money well spent.

I made the statement some months ago that unjust suspicion rested on the trade. This is due to the "plumber joke," the caricature and the unjust reflections of persons unfamiliar with the business. It is gradually being dissipated, I am happy to say.

But the opportunity is still here for you to do good in this direction. Never let an opportunity go by to refute these evil jokes of reflections on your calling. In addresses delivered by me last year I had considerable to say on this subject. I put my opinion in practice at every chance, and the plumbers at Decatur did likewise. The effect was good, excellent in fact. Decatur newspapers are very cautious in what they say about plumbers. Let me cite you to an instance. At the annual banquet of our salesmen at the Decatur Country Club, Saturday evening, January 4th, there was present as a guest, Warren J. Hardy, managing editor of the Decatur Herald. When called upon to speak he said he had learned from my addresses some truths about the injustice done to plumbers by ill-advised publication, and that he could speak from experience. In spite of his orders to keep such stuff out of the paper, an interview with a disgruntled citizen was published, and it was cited that in a southern town a water meter could be bought for half of what it cost in Decatur. As a result of this interview Mr. Hardy stated that he had to publish a two-column explanation signed by the Decatur plumbers. Now he is doubly careful about what he prints concerning plumbers. Mr. Hardy very manfully admitted that the original interview was misleading. In fact it was untrue. We helped the Decatur plumbers correct this and were glad to do so. The facts briefly are these: The price of the meter was the same. In the southern city the plumber sold the meter separately. In Decatur he sold and installed it. In the case of the disgruntled citizen who gave the interview it was necessary to change all cocks, stop and wastes, etc., to make the installations, it being an old house. The meter was sold at exactly the same price as in the southern city, but the Decatur man simply charged his whole plumbing bill against the meter, then compared the cost to the regular selling price of the meter by itself, and yelled "robbers," "sand-baggers," etc.

Every time a false accusation is made against you—defend yourself through the papers. Answer through the same paper in which the false charge is made. Editors don't like to have to back up. It won't take long to educate the editors in your town as they are educated in Decatur, because as a rule the editor wants to be truthful, fair and honest with his readers.

And so I could go on almost indefinitely, for opportunities are knocking at your door all the while. Don't neglect them. If you do you'll not succeed. Listen to the advice of the best men in your business. All men cannot originate new ideas, but all men can adopt them. It's not dishonest, belittling or humiliating to do this. It has been done time without number since the world began. If you see an idea working in another man's business to his advantage, apply it to your own. You may rest assured that if someone discovers that you have applied a good original idea to your business he will adopt it.

Keep digging, never quit. And you will win in spite of obstacles. Don't quit because you have experienced a backset. Forget it and dig harder than ever. Remember that opportunity does knock more than once at every man's door.

If I have spoken frankly to you plumbers today it is because I am deeply in sympathy with your business, because I want you to succeed and prosper. I know the plumbing business from experience. We were plumbers just like you before we became manufacturers. I have been up against nearly all of the problems that confront you. I know that for many years the public held unjust suspicion against this business. I believe this is gradually being changed, that the trade is reaching a higher standard and that its best days are yet ahead of it.

Such advice as I have offered is not new. It is the result of observation and experience. We grabbed every opportunity as plumbers and began as manufacturers in a small way. It was a hard up-hill fight, and frequently we slipped back and the outlook was cheerless enough, but we did not give up. We dug, dug, dug, day and night and such success as we have attained came through perseverance and a determination to win. While I may say with pardonable pride that we have reached a successful position in the ranks of brass manufacturers, I want to assure you that it has never alienated our sympathy from the man who is still in the plumbing business, and I feel that I can say without fear of the accusation of egotism, that no firm in our line better understands the difficulties which confront you than our firm. In any legitimate way possible to us we want to help you, and see you grow into the prosperity and the business success you surely deserve.

I thank you.

#### ATTRACTIVE SHOW ROOM OF IRVING BOOTH, ELMIRA.

The illustration herewith gives but a faint idea of the attractively arranged and practical display of plumbing fixtures in the show room of Irving Booth, Elmira, N. Y.



Showroom of Irving Booth, Elmira, N. Y.

Mr. Booth states that his business in the past year has exceeded his expectations and that for a time he was turning down orders. He is a firm believer in the generous display of high grade fixtures.

"Father," said the small boy, "what is a platitude?"

"A platitude, my son, is a statement whose truth you are compelled to admit, uttered by some one whom you do not personally admire."—Washington Star.





Ladies of the Illinois Master Plumbers' Association at Luncheon in the Sun Parlor of the Leland Hotel, at Springfield Ill., January 29, 1913.

Reading from left to right: First table—Mrs. F. L. Yerbury and Mrs. A. N. McNeil, Rock Island, Mrs. B. E. Lynam, Chicago, Mrs. W. Luker, Canton. Second table—Mrs. J. N. Heruman and Mrs. J. M. Eastman, Monmouth, Mrs. O. O. Fry, Springfield, Mrs. W. C. Haviland, Aurora. Third table—Mrs. J. J. Ruddy and Miss Mabel Ruddy, Aurora, Mrs. A. Kelley and Miss Marie Kelley, La Grange. Fourth table—Mrs. Solon Drendel, Springfield, Mrs. P. J. McKee, Harry Herron, Springfield. Sixth table—Mrs. J. W. Ward, Rock Island, Mrs. A. Walz, Springfield. Fifth table—Mrs. M. J. Nollen, Mrs. Geo. A. Oswald, Mrs. J. M. White, Charleston. Seventh table—Mrs. D. M. Stewart, Mrs. J. N. Murphy, Mrs. J. F. Murphy, Mrs. Henry B. McVeigh, Springfield. Eighth table—Mrs. Geo. J. Dehn, Chicago, Mrs. Chas. Kiebele, Mrs. Fred Franz, Jr., Mrs. J. F. Willey, Springfield. Ninth table—Mrs. C. K. Todd, Chicago, Mrs. J. G. Foetner, Joliet, Mrs. Chas. Greenwood, Princeton, Mrs. Walter L. Eriksen, Joliet. Standing—Mrs. Caleb Willey and Mrs. Frank U. Patter-son, Springfield.

# Illinois Plumbers Convene at Springfield

The Second Largest Association in the United States  
Holds the Best Attended Convention in Its History

**W**HILE the members of the Illinois legislature were gathering, making political trades, and trying to break the deadlock for speaker, the Illinois Master Plumbers' Association began, in an orderly and businesslike manner, on the morning of Tuesday, January 28th, the regular business of their twenty-first annual convention.

The sessions were held in Arion Hall, just opposite the St. Nicholas Hotel, where headquarters were established.

## TUESDAY MORNING SESSION.

The invocation by Rev. E. S. Combs, pastor of Douglas Avenue M. E. Church, opened the session. Mayor John S. Schnepf was introduced by Frank U. Patterson, of Springfield, and stated that because of the advanced ideas of the plumbers of the city, Springfield is one of the best-equipped of Illinois cities from a sanitary standpoint. The mayor called the plumbers' association one of the most progressive organizations of Illinois citizens.

T. E. Walters, of Aurora, responded to the welcome of Mayor Schnepf and in a few brief and timely remarks expressed the appreciation of the members for the goodwill extended.

It was hoped to have Governor Deneen and Governor-Elect Dunne present to address the members, but neither could come.

## Extracts from President's Address.

In his address President W. J. Hilliard, of Elmhurst, spoke on the state plumbing law which will come before the new legislature. The standard of work all over the state, outside of Chicago, will be raised and all cities over 5,000 will have plumbing inspectors and a board with power to enforce the law. The larger cities are now better protected than the smaller ones, and it is the intention to aid the plumbers in the smaller towns in their work for better plumbing. Too much dependence has heretofore been placed on the judgment of the individual plumbers in the smaller cities, to put in work that came up to city requirements.

President Hilliard was enthusiastic in his approval of an amendment to the present state law which will establish a state examining board for plumbers, both masters and journeymen, and each will have to pass the same state examination. Many are now working without having passed any examination.

A master plumber on the State Board of Health is also a provision of the amendment, and energetic effort will be put forth by the members of the association to consummate this good work. Much has been said on this subject in recent issues of "Domestic Engineering."

A mutual liability insurance company to carry the insurance of the members of the Illinois association, was urged by President Hilliard. With the Workmen's Compensation Act in force, a great deal of expense is incurred by individual members in carrying insurance with the liability risk companies who now furnish such policies. Should a plumber elect to operate outside the law, he is deprived of the only legal defenses that he can otherwise secure, and may lose heavily in event of accidents.

A mutual company could be formed to include all members of the state association, along the lines already successfully put in practice by the Milwaukee Master Plumbers' Association, which has now been in operation about two years and has been furnishing liability insurance to its members at about 25 per cent of the cost in the regular companies. Its activities are now being extended to include the membership of the Wisconsin State Association.

The following committees were then announced:

Credential Committee: George Moore, Evanston; John L. Robertson, Mason City; Charles Greenwood, Princeton.

Resolutions: T. E. Walters, Aurora; J. T. Clifford, North Chicago; Charles Taffe, Chicago; R. P. Kennedy, Alton; M. S. Hitchcock, Peoria.

Auditing: B. E. Lynam, Chicago; Thomas F. Cody, Peoria; George Kearney, Evanston.

Memorial: C. J. Stein, Chicago; W. L. Ericson, Joliet; H. B. McVeigh, Springfield.

## Secretary's Report.

Secretary Haviland in his report went into some details as to the finances of the association, but particularly told of his attendance, with W. A. Decker of Grand Rapids, Mich., at the first meeting of the National Federation of Retail Merchants at St. Louis last November. He explained the objects of the federation and urged the plumbers to take an active interest in the work of the federation. He stated that Mr. Decker had been made a mem-



F. J. Bohn, C. F. Taffe, F. W. Page, E. C. Wagner, F. W. Kiesgen, of the Chicago Delegation.



Fred H. Bowen, of Thomas & Smith, Chicago, and Mrs. Bowen, Whose Boys, F. Raymond and Ralph H. Bowen, Added Youth to the Convention.



Arthur McNeill, Rock Island; H. J. Schmidt, Silvis; Fred Seifert, Peoria, and L. W. Kamp, Mt. Carmel.



Three Hustling Master Plumbers of Lincoln, Messrs. Rhoads, Jones and Bouillon.



ber of the board of directors and elected third vice-president of the federation.

The price-list of the state association was brought to the attention of the members and they were urged to keep in touch with the advertisers therein.

#### No Afternoon Session.

No session was held Tuesday afternoon, that the members might be enabled to make a careful inspection of the exhibits of the different manufacturers, which were arranged in an adjacent room of Arion Hall.

Tuesday evening was also open, the members finding such recreation as suited their individual tastes.

#### WEDNESDAY SESSIONS.

The sessions of Wednesday were both given over to executive work. Among the resolutions introduced was one that a letter be presented to Governor-elect Dunne urging the appointment of Mrs. Sue M. Simpson of Peoria as superintendent of the Soldiers' Widows' Home at Wilmington, Ill. Mrs. Simpson is the widow of the first

David Ross, secretary of the state bureau of labor statistics. Mr. Ross, in well-chosen language, explained the merits of the law and stated that the risks of employers who elected to operate under the law have been much decreased. The heavy cost of lawyers and court costs, which have meant only an outlay for which there was little return, are eliminated by the new law. The injured persons seldom got as much as they were entitled to, under the old plan of law suits, and since the new law fixes the amount to be paid in case of injury, there is no legal delay in settling cases. Mr. Ross said: "One mill on each dollar's worth of manufactured goods produced in this state since the new law went into effect is all that it has cost to pay personal injury claims under it."

The talk by Mr. Ross was greatly appreciated by his hearers, as many had but a hazy idea of the operations of the compensation act, and were thereby set right as to its provisions.

At the close of the meeting of Wednesday morning a lecture on the manufacture of sanitary pottery, illustrated



Members and Guests of Illinois Master Plumbers'

president of the Illinois Master Plumbers' Association, who was also a Civil war veteran.

A telegram was received from W. A. Decker of Grand Rapids, Mich., regretting his inability to be present, and urging the association to affiliate with the National Federation of Retail Merchants, and appropriate \$100 for this purpose. No action was taken toward affiliation as a body, but the suggestion to do so was made to the individual members.

A recent recommendation by the national association that the secretaries of all state associations should be practical men regularly engaged in the business, precipitated a lengthy discussion. A movement to have the secretary elected from the floor instead of being appointed by the board of directors, as at present, was finally taken up, only to be defeated on Thursday. Under such a plan the secretary, regularly elected, would be furnished an assistant secretary who would devote all his time to the work of the office and receive a stipulated salary. The efficient work of the present secretary, W. C. Haviland of Aurora, has never been questioned, although he is only indirectly interested in a plumbing shop, and not directly engaged in business.

#### Talk by David Ross.

A part of the morning session was given over to an explanation of the Workmen's Compensation Act, by

by stereopticon views, was given under the direction of Harry Snow of the Peerless Selling Co., and proved very interesting.

The afternoon session was given over largely to the consideration of resolutions and a number of amendments to the by-laws.

#### Lecture by Dr. Krebs Wednesday Evening.

The lecture by Dr. Stanley L. Krebs, the expert on salesmanship and advertising, of Philadelphia, on Wednesday evening in Arion Hall, was a treat to those who heard him. His explanations were lucid, the applications of the fundamental principles of salesmanship and advertising to the plumbing business were apt, and he kept his audience in good humor by stories that brought home salient points in his talk.

In the course of Dr. Krebs' remarks he classed the plumbers as the doctors and surgeons of their communities, stating that their work was many times of an unpleasant nature and that they should be well paid for it. "The whole community depends upon the pipes you lay and the fixtures you install, for a continuance of its health," he said.

The thought of applied psychology to the business of plumbing has not occurred to many now engaged in the business, according to Dr. Krebs, but the possibility of

applied science in securing business and handling customers is a subject well worthy of investigation. It is



Dr. Stanley L. Krebs, Who Addressed the Convention.

possible to specialize on this subject and make the business much more profitable.

overheard, are bound to be productive of results. Flowers cannot be expected tomorrow from seed planted today—advertising and salesmanship work the same way.

But if you cannot capture an enemy by a front attack, try one by the flank. Indirect salesmanship, called by some, third-party suggestion, is a very effective means of accomplishing results. To get a number of friends to talk about your shop, your goods, and your workmanship, will do a lot of good. The fact that you pay a man to drop a few remarks to a prospective customer that secures you his contract, is not a dishonorable way to do business.

Avoidance of negative words and phrases in advertising and selling was dwelt on at some length. The word "don't" should not be used in advertising—it opens up a question every time that is too easily answered in the negative. The phrase "don't forget to come" is not as strong as "remember to be there."

Admit the good in your competitor—talk your own goods and keep your customers interested in your own line and your own service.



Association, Springfield, Illinois, January 30, 1913.

The science of suggestion is applied psychology. It is not hypnotism or mesmerism, but the impartation of an idea to the customer until the desired results are attained. One effect of mesmerism is appreciated by the customer—the gentle touch of your hand on his arm or shoulder, until you get down to his pocketbook, when he may resent it.

The power of suggestion lies in reaching the customer's pocketbook without his opposition. Confidence is necessary to get the customer and a continuance of confidence to hold him.

The question arises: What shall I say; what shall I write, to create confidence in my customer's mind?

There are two ways of conveying ideas of the goods to the customer. One of these, iteration, and the other, indirect suggestion. Iteration of an idea produces a crease in the mind, which becomes a habit. Seeing an advertisement once does not create much impression—its continuous appeal, day after day, is what gets results. Illustration of the appeal of a certain brand of biscuit, the advertising seen until the suggestion to buy became irresistible, was given, as well as other stories.

When the journeyman is out on a job, he has an opportunity to suggest to the owner new things that he can use, and influence him to come to the store and look them over. Such suggestions, dropped continually, by workmen, by friends, in public places where they can be

Dr. Krebs provoked considerable laughter when he asked if the plumbers present would put the same kind of workmanship into a two thousand dollar house as they would into one costing eight thousand. The varying answers brought out the suggestion that different methods must be used in selling plumbing to the ignorant whites of the North Carolina hills and the wealthy home owners of Ohio. Attractiveness to the people whom you wish as customers was the great need.

He suggested that when one sale was being made, it was very easy, while the customer was in a buying mood, to secure an order for other things needed to go with what he had already bought. Simply taking an order and filling it is not salesmanship.

Saying to a customer "Nothing more?" or "Is that all?" implies a negative answer. A better way is to suggest some definite article that the customer should have, but has not thought about. Let the customer help to sell himself, by the power of the suggestions you drop.

The plumber has a place of business—is a salesman, or should be—is not a mechanic, though part of what he sells is the labor of the mechanics he employs.

Dr. Krebs closed by telling a story of a man whom he had reformed from a life of idleness and debauchery by the constant repetition of the idea: "There's a better man in you, Jim; **you** are going to make that man boss of you." The idea brought out was that a customer





Manufacturers' Exhibits in Arion Hall, Illinois Master Plumbers' Convention, Springfield, Ill., Jan. 28, 29 and 30th, 1913.



could be brought to think he was selling himself, and that the suggestion to buy came from himself, instead of from the salesman.

### THURSDAY SESSIONS.

Preceding the regular meeting Thursday morning was given a stereopticon lecture on boilers and radiation, and the methods of figuring heating work, by H. R. Dillon, which was listened to with close attention.

The executive session followed, and completed much routine business. Reports of the different committees not previously reporting were received.

Mayor Thomas Sanders of Aurora, in a telegram to the association, invited them to Aurora in 1914. T. E. Walters made a motion that the executive committee give full consideration to the invitation in arranging for the next convention, which was carried.

The executive committee, on motion of Mr. Gause, was requested to send to Governor-elect Dunne a resolution stating that the association would view with satisfaction the reappointment of Thomas O'Connor as a member of the State Board of Arbitration.

The memorial committee reported that suitable memorials had been prepared for the following deceased members during 1912: Wm. Behn, J. J. Hamblin, F. C. Otis, Chicago; P. J. Wendt, Forest Park; Andrew Young, Chicago; A. P. Manard, Elgin; Fred S. Benright, Hubbard Woods; J. W. Frye, Lake Forest; Owen Hanrathy, Springfield; Roy Ray, Virginia; D. E. Clow, Wilmette.

The session closed after the election of the following officers: President, W. J. Hilliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, John L. Robertson, Mason City; treasurer, O. W. Dawson, Decatur; delegate to the national convention, George S. Moore, Evanston; alternate, J. J. Ruddy, Aurora.

### Entertainment.

The entertainment features of the convention were not slighted in any degree. The ladies in attendance were especially well looked after. Twenty-six of them attended a box party at the Majestic Theatre vaudeville on Tuesday afternoon.

On Wednesday afternoon at 3:30, in the sun parlor of the Leland Hotel, thirty-eight ladies sat down to a most delightful luncheon. The photographer's view of the company is reproduced elsewhere. The menu was as follows:

	Cream of tomato soup		
	Whitefish	Boiled lamb chops	
Potatoes	French peas	Fruit salad	
	Ice cream and cake	Coffee	

Professor Lehman furnished the music.

### The Banquet.

At 9 o'clock the members of the association and guests sat down to a sumptuous eight-course dinner in the dining room of the St. Nicholas Hotel. More than two hundred participated in the affair. Music was furnished by Prof. Louis Lehman's orchestra, the solo cornet work by Charles Lorsch being especially pleasing.

Applause greeted President Hilliard's announcement that toasts had been tabooed, and that the guests were to enjoy a program of dances as soon as the floor could be cleared. Sixteen numbers on the program held the interest of the guests until a late hour.

### Delegates.

Alton: Percy Kortkamp, F. S. Heskett, R. P. Kennedy.—Atlanta: Edward Bouillon.—Aurora: J. J. Ruddy, T. E. Walters, L. D. Krumlauf.

Beardstown: H. C. Keil, W. P. Beatty.—Bloomington: H. C. Reilly, Frank Sullivan, Wm. Johnston.

Canton: J. P. Murphy, Mr. Luker.—Carthage: E. F. Abbott.—Carlinville: D. E. Sexton.—Champaign, R. E. Young, L. W. Apperson.—Charleston: John M. White.

Danville: E. J. Ryan.—Decatur: O. J. Zimmerman, Fred Schlie, T. E. Downing.

Eastern Lake Co. Ass'n: A. M. Lanyon, John T. Clifford, J. L. Frye.

East St. Louis: J. K. Kickham, Ben Vodde, Thos. McEvilly, John C. English.

Elgin: L. F. O'Flaherty, R. W. Bridge, Martin Runge, Chas. Brinton.—El Paso: Chas. A. Eve.—Evanston: Geo. S. Moore, Geo. Park, Geo. Kearney, Fred Luettig, Robt. G. Saxer.

Fairbury: Chas. B. Day.—Granite City: W. C. Bergner.

Geneva, Batavia and St. Charles Ass'n: M. O. Nelson.

Chicago: E. J. Benning, E. C. Wagner, Wm. J. Lang, C. J. Boyd, F. W. Page, P. M. Murphy, C. J. Stein, F. J. Bohn, C. A. Dreier, C. J. Herbert, F. N. Kiesgen, J. C. Naughton, Wm. F. Bahn, Henry Breyer, L. Claussen, C. C. Breyer, P. J. Foley, Geo. Franklin, W. D. Kelly, C. F. Taffe, Geo. Schey, F. J. Dillenburg, B. E. Lynam.

Havana: J. F. Dare.—Highland: Louis Knoebel.

Joliet: Leo. J. Wilkmi, W. L. Erikson, L. Henschen, J. G. Poehner.—LaGrange, Hinsdale, Congress Park, Brookfield and Riverside Ass'n: Geo. I. Kelley, M. Decker, James W. Castle, F. F. Schwench.

LaSalle: R. H. Brodbeer, John Hynde, Wm. Schmoeger.—Lincoln: W. E. Bouillon.—Mason City: John C. Robertson.—Mattoon: A. C. Hanson.—McLeansboro: Chas. Sturman.—Monmouth—J. W. Herdman, I. W. Eastman.—Mt. Sterling: A. W. Smith.—Nauvoo: A. C. Rahn.

Northern Dupage County Ass'n: F. A. Goetz, Edward Bradley, Robt. Patch, H. H. Putnam.

Peoria: Thos. Cody, Theodore Kasjens, M. S. Hitchcock, Thos. McQuellon, Fred Siefert, jr.—Princeton-Mendota Ass'n: Chas. S. Greenwood, T. E. Norton.

Quincy: James H. O'Neil, Sewart Best.—Rock Island: A. M. McNeil, J. W. Ward, F. L. Yerbury.—Rushville: A. C. Rowland.—Silvis: H. J. Schmidt.—Sparta: T. H. Sprowl.

Southern Cook Ass'n: W. F. Hildeman, E. A. Prouger, E. W. Clark.—Southern Henry Ass'n: H. A. Dustin, H. C. Albrecht.

Springfield: Chas. Kiebele, Geo. Lehnen, Henry McVeigh, C. H. Willey, John F. Willey.—Streator: Wood Mulford, J. A. Huggens.—Whitehall: W. W. Evans.



W. V. Pettit, L. M. O'Neill and C. B. Irish, of Leader Iron Works; C. H. Dubois, of H. Mueller Mfg. Co., all of Decatur, Ill., and Wm. Johnston, of Bloomington.



John C. Jamieson, P. J. Deis and E. P. Sheeran, of the Geo. J. Roberts Co., Dayton, O.



A. W. Biever, Aurora, conversing with Harry Snow of the Peerless Selling Co.



Tom McQuellon and Wm. Entwisle, Peoria; John Blake, Blake Specialty Co., Rock Island; J. B. Stewart, Western Specialty Co., Kansas City, and Ted Kasjens, Peoria.

The Manufacturers' Representatives and the Plumbers Were Often Seen Together.



### The Manufacturers' Exhibits.

One of the features of the convention of a great deal of value to the members in attendance, and which will no doubt prove profitable to those who made displays, was the exhibit by a number of manufacturers in a large room adjoining the convention hall. A large group picture of the different exhibits is shown on another page.

The H. Mueller Mfg. Co., of Decatur, Ill., showed their line of Rapidac brass goods and some specialties, and were represented by C. H. Dubois and Louis Cash.

C. L. Wilkins, president and manager of the Illinois Pump & Brass Co., of Peoria, Ill., explained the merits of his line of water lifts.

The vacuum cleaner department of the American Radiator Co. displayed one of their cleaners, being represented by H. R. Dillon, Milo Dillman, F. J. Miller, H. Plumley and Frank Stall.

N. W. Lundy, general manager of the Double Blast

Harry Snow presided over the display of closets made by the Peerless Selling Co., Evansville, Ind.

A large display of drainage fittings and specialties was shown by the Compound Injector & Specialty Co., Chicago, in charge of President Geo. J. Dehn, assisted by H. E. Parker.

The United Pump & Power Co., Old Colony Building, Chicago, showed several complete water systems, as well as pumps, which were explained by their representative, Neil McIntosh.

### CONVENTION NOTES.

Harry Snow, of the Peerless Selling Co., was a royal entertainer. An automobile ride to the Lincoln monument and other points about the city was arranged by a number of the members on Thursday afternoon, with Harry as sponsor.



Frank U. Patterson, Springfield Member (Past President).

O. W. Dawson, Decatur, Treasurer.

W. C. Haviland, Aurora, Sec'y.

W. J. Hilliard, Elmhurst, President.

C. D. Brownell, Champaign, First Vice-President.

John L. Robertson, Mason City, Second Vice-President.

Members of the Board of Directors of the Illinois Master Plumbers' Association for 1913.

Mfg. Co., North Chicago, Ill., was present with a display of plumbers' fire pots.

Thomas & Smith, 116 N. Carpenter Street, Chicago, was represented by Fred H. Bowen, who explained the pumping machinery manufactured by his house.

A line of gas water heaters was shown by the Humphrey Co., Kalamazoo, Mich., in charge of L. E. Tremaine, sales agent.

The Geo. J. Roberts Co., Dayton, Ohio, had a display of electric pumps and water lifts, explained by John G. Jameson, P. J. Deis and E. P. Sheeran.

The display of pumping machinery and water lifts by the Vaile-Kimes Co., Dayton, Ohio, was in charge of H. A. Stamper, assisted by R. L. Tansel.

The booth of the Leader Iron Works, Decatur, Ill., contained late models of pumping machinery and a complete water system, explained by L. M. O'Neill, W. V. Pettit and Chas. B. Irish.

When the Chicago delegation was coming down on their special car over the Alton on Monday evening, a man leaned over to "Doc" Knauss in the dining car and remarked, "Mr. Lewis, I hope you will do your best to break that deadlock tomorrow." Doc says this is not the first time that his whiskers have been confused with those of J. Ham. Lewis.

The handsome menus for the banquet were furnished by the Leader Iron Works, of Decatur, Ill.

### MASTER PLUMBERS' ASSOCIATION OF NEWARK, N. J., BANQUET AND BALL.

The Master Plumbers' Association of Newark, N. J., held its eighteenth annual banquet and ladies' night at Achtel-Stetters, Thursday evening, January 30.

The guests began arriving about 6:30 o'clock and an informal reception was held until the announcement that

dinner was served. The line of march was then taken up, headed by Mayor Haussling, accompanied by his wife, for the dining room, where the guests enjoyed the good things that had been provided. During the repast music was rendered by an orchestra and a number of popular songs of the day were sung by those present.

Upon conclusion of the dinner, Toastmaster J. J. Turbett said he wanted to introduce the most popular man in Newark, Mayor Haussling, who has served five times as mayor of Newark.

Among the other speakers of the evening were Louis Maier, president of the local association; George Turner, of Asbury Park, president of the state association; A. Selden Walker, ex-national president, and H. F. Baillet, secretary of the state association.

Dancing was participated in until a late hour.

The entertainment committee consisted of J. J. Turbett, chairman; Elmer Lutz, F. J. Sturn, Robert Berla, Matthew J. Brady, Louis Maier.

The ladies' reception committee was composed of Mrs. J. J. Turbett, Miss Vera Lutz, Mrs. F. J. Sturn, Mrs. Robert Berla, Mrs. M. J. Brady and Mrs. Louis Maier.

Among those present were: Mayor Jacob Haussling and wife, Harry J. Farrell, national state vice-president, and wife, Camden, N. J.; George Turner, president of New Jersey state association, Asbury Park; H. F. Baillet, secretary of the state association, and Mrs. Baillet; Joseph A. Sprouls, Jersey City, Louis Maier, Chas. F. McGuire, M. T. Baudermann, F. J. Sturn, Robert Berla, James F. Hanley, Matthew J. Brady, Samuel F. Wilson, Elmer Lutz and Matthew J. Brady.

The manufacturers and supply men represented at the banquet were: H. Mueller Mfg. Co., New York; Boynton Furnace Co., New York; Atlas Brass Co., New York; Richardson & Boynton Co., New York; H. B. Smith Co., New York; Glauber Brass Mfg. Co., New York; Peerless Selling Co., Evansville, Ind.; American Radiator Co., New York; Crane Co., Newark; Alberene Stove Co., New York; Jenkins Bros., New York; W. H. Page Boiler Co., New York; John Douglas Co., Philadelphia; J. S. Hetzel, Newark; Good Mfg. Co., New York; A. W. Birdsall Co., Newark; W. H. Crookston & Bro., New York; Crane & Milligan, Newark; Wm. E. Cavenagh, New York; S. Morton & Co., Jersey City; Graff Furnace Co., New York; Benj. Wulack, Newark; Faitout Iron & Steel Co., Newark; Marknet & Doremus Co., Newark; W. S. Roe, Newark; Van Ness Slate Co., Newark; Eselgratt & Co., Newark; W. V. Egbert & Co., Newark; Frank K. Chew, Metal Worker, New York; R. S. Campbell, Plumbers' Trade Journal, New York; Joseph Graham, "Domestic Engineering," New York.

#### ANNUAL RECEPTION AND BALL OF THE MASTER PLUMBERS' ASSOCIATION OF THE BRONX, NEW YORK CITY.

The annual reception and ball of the Master Plumbers' Association of New York City, Bronx Branch, was held at McKinley Square Casino, 169th Street, near Boston Road, Friday evening, January 31.

The hall was tastefully decorated with flags of different nations, which, together with the mirrors in the hall, gave a gay appearance to the numerous dancers on the floor.

In connection with the dance, a vaudeville show was given, affording opportunity for the display of local talent, consisting of the "Thousand Pounds of Harmony," composed of Mr. Redmond, Jenkins Bros.; J. S. Weston, Swan Finch Co.; F. J. Corbett, Best Mfg. Co.; and J.

Scanlon, who produced so much harmony that they were recalled again and again.

The grand march was held at 12 o'clock sharp, after which dancing was participated in until a late hour.

The committee of arrangements consisted of J. J. Foley, chairman; W. J. Flynn, W. Wilcox, V. Bernesser, S. H. Welch, O. Johnson, T. F. J. Moffett.

Reception committee: J. J. Foley, chairman; Jos. Theiss, W. J. Flynn, S. H. Welch, F. Habeck. Floor director, W. J. Flynn.

Among those present were: Frank B. Lasette, state president of New York Association; Chas. Frean, secretary of the plumbers' exchange; Joseph Theiss, president of the Bronx Association; F. Habeck, vice-president Bronx Association; S. H. Welch, treasurer of the Bronx Association; T. F. J. Moffett, financial secretary; D. Durie, corresponding secretary; J. J. Foley, J. V. McEvily, P. Schweikert, G. Jung, F. Weber, W. Wilcox, W. J. Flynn, V. Bernesser, O. Johnson, Alfred Beyrodt, Matthew Kennedy, Jas. F. Bonser, Otto Ozab, Edward L. Eich, Geo. Knauss, Jacob Muller, Henry Saltzmann, Daniel Cash, D. L. Delaney, P. Mead, Jos. Rowan, Alex. Brown, Philip Carber, Nicholas Bellion, Henry Farrell, Benj. Goldstein, Jas. Hogan, Hugh Kelly, Wm. Kroepeke, Louis Maconsey, Samuel Minskoff, Anthony Polzella, F. J. Reihm, John Rendall, Henry Rudolph, Herman Schmidt, Martin Malarky, C. J. Gleason, J. A. Smith, Geo. Smith, D. Rogrove, D. J. Deedy, H. Newhoff, M. J. Crowley, J. Richman, A. Schneider, D. Bradspis, G. R. Koeble, E. Ducklaner, F. A. Buser, Geo. P. Engeldrum, F. J. Hecht, Martin Klett, R. J. Keesing, J. P. Mitchell, Frank Ritz, Jos. Rice, F. Steiger, F. Wohn, S. Arnome, B. F. Coughlan, Jas. Kelly, John J. Dixon, secretary-treasurer Brooklyn Association; Joseph Graham.

Among the manufacturers and supply men represented were: Asa W. Crookston, Wm. H. Crookston & Bro.; Jos. Kelly, Colwell Lead Co.; W. Lockwood, Pittsburg Meter Co.; E. N. Cokefair, Magee Furnace Co.; P. R. Rosenthal, Rosedal Brass Co.; S. E. Millman, Lehnert & Co.; P. R. Dobbs, Peck Bros. Co.; Geo. Larsen.

#### ENTERTAINMENT AND BALL OF THE KNIGHTS OF GALENA.

The eighth annual entertainment and ball of the order of the Knights of Galena, veteran plumbers, steam and gasfitters, was held at Labor Lyceum, Willoughby and Myrtle Avenues, Brooklyn, N. Y., Monday evening, February 3.

A profusion of bunting gave the hall a gala day appearance, while over the stage in golden letters were the words "Knights of Galena."

The evening's entertainment started at 9 o'clock with a minstrel performance, after which the following program was rendered:

The Man of Mystery—Prof. Irving, the magician that makes you laugh.

That Little Rascal—Tommy Dobson, singing comedian and monologist.

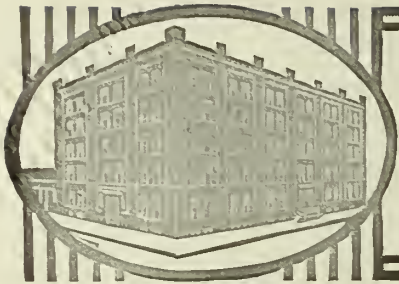
The Laugh Getters—Mack and Edwards, in a refined comedy musical offering.

The Kinckerbocker Quartette—comedians and harmonists.

The Rolling Swells—McNichol Bros., comedy on rollers.

At the conclusion of the entertainment the chairs were removed and dancing was participated in.





## News of Interest Among the Wholesalers and Manufacturers



### **EASTERN SUPPLY ASSOCIATION'S WINTER MEETING.**

The Eastern Supply Association will hold its regular winter meeting at the Hotel Astor, New York City, on Wednesday, February 19th. It is expected that the meeting will be well attended.

### **McDERMONT & MORY OPEN NEW YORK OFFICE.**

McDermott & Mory, of Dayton, O., manufacturers of sanitary flushing cuspidors, have recently opened an office at 25 W. Forty-second Street, New York City, in charge of A. M. Brchm.

### **VICTOR BRASS MFG. CO. STARTS OPERATIONS.**

The Victor Brass Mfg. Co., of Cleveland, O., celebrated its first pouring of metal on January 22nd. Over forty Cleveland business and professional men were present at the event and refreshments were served to all.

### **SECURES LARGE ADDITION TO ITS PLANT.**

The Scientific Heater Co., E. Twelfth Street and Power Avenue, Cleveland, O., manufacturers of gas heating specialties, has made arrangements for 10,000 square feet of floor space, which has been equipped with modern machinery throughout. This will enable the company to triple its output of gas heating goods. Operations were started in the new section on January 20th.

### **THE ULKO SUPPLY CO. OPENS BUSINESS.**

The Ulko Supply Co., Inc., has just started in business at 4733-4735 Broadway, Cleveland, O. E. H. Ullrey, president of the new company, was formerly connected with The Good Mfg. Co., of New York City, and he has a large acquaintance in the plumbing trade. B. F. Koch, secretary and treasurer of the company, was formerly president and manager of The Hoffman Heater Co., of Lorain, O.

### **STANDARD SANITARY MFG. CO.'S. OFFICE AND SHOWROOMS IN PHILADELPHIA IN NEW QUARTERS.**

The Philadelphia offices and showrooms of the Standard Sanitary Mfg. Co., of Pittsburgh, Pa., under the management of J. Chas. Parry, are being moved from 1128 Walnut Street to larger quarters at 1215 Walnut Street. The new location will give the company about twice its former space and will afford an opportunity for prominent display. The offices, which will be in the rear on the first floor, will be finished in genuine mahogany, while the front portion of that floor will be done in green. This section will be devoted to reception and display rooms.

### **NEW YORK CITY OFFICES OF "DOMESTIC ENGINEERING" IN NEW LOCATION.**

On February 1st the offices of "Domestic Engineering" in New York City were removed to the Fifth Avenue building, 200 Fifth avenue, facing Madison Square. The suite now occupied is much more commodious than the old quarters at 150 Nassau street.

The trade are cordially invited to inspect the new offices when they are in New York City, and make them headquarters while there. E. De Forest Winslow, vice-president and eastern advertising manager; Joseph Graham, technical editor, and J. H. Vander Meer, eastern subscription manager, will be pleased to meet their friends there.

### **THE OCCIDENTAL CO. TO MOVE MAY FIRST.**

The Occidental Co., of New York City, for some years located at 1 East Twenty-seventh Street, will on May 1 move to attractive quarters in the Architects' Building at the northeast corner of Fortieth Street and Park Avenue, where a suite of offices has been leased. A portion of these will be devoted to office purposes and the larger room of the suite will be utilized to display the company's line of vitreous china plumbing fixtures. The firm's warehouse is now located at 235 Water Street. The personnel of the company's selling staff is: J. R. Williams, manager; Paul Heiland, F. J. Peck, Geo. D. Pierce, W. C. Crawford and Nelson J. Maskowitz.

### **GENERAL OFFICES OF CRANE COMPANY, CHICAGO, NOW LOCATED ON MICHIGAN AVENUE.**

The new office building of Crane Company at 836 South Michigan Avenue, corner of Eldredge Court, Chicago, is now occupied by the company. The offices were moved within the last two weeks from the old building at 1214 South Canal Street, and everything is now in shape to take care of business in the usual way.

The new building is twelve stories in height with a basement, and has a frontage of 40 feet on Michigan Avenue and a width of 160 feet on Eldredge Court. It is of modern steel frame construction and is fully fire-proof. Gray granite and buff Bedford stone are used up to the third story, above which red tapestry brick with buff terra cotta trimmings has been laid.

Inside the building is well lighted. The interior finish is of oak and all aisles are covered with heavy linoleum.

The offices are all large open style, no private offices except a directors' room being used. The desks were specially made and are all flat top, each one numbered and a record kept of the work done at each.

On each floor are Crane drinking fountains, using cooled water from a refrigerating plant in the basement. A vacuum cleaning system is also a feature of the build-

ing. The heating plant is a two-pipe steam modulating system and the ventilation is effected by means of forced draft.

The plumbing showroom is in the basement and is attractively finished in tile and marble.

The first floor is used as a steam goods exhibit, one of the features being a 72-inch low-pressure gate valve. The sales departments are also on this floor.

On the second floor are the engineering department, specialty department and the traffic force.

The executive offices are on the third floor, where is also located the directors' room, the branch house department, cost, pipe and building departments and the telegrapher.

On the fourth floor are the treasurer, assistant treasurer, auditing and accounting, credit and payroll departments.

The purchasing department is on the fifth floor, where is also found the plumbing department and the metal buyer.

The sixth floor is used for the statistical department and the telephone exchange.

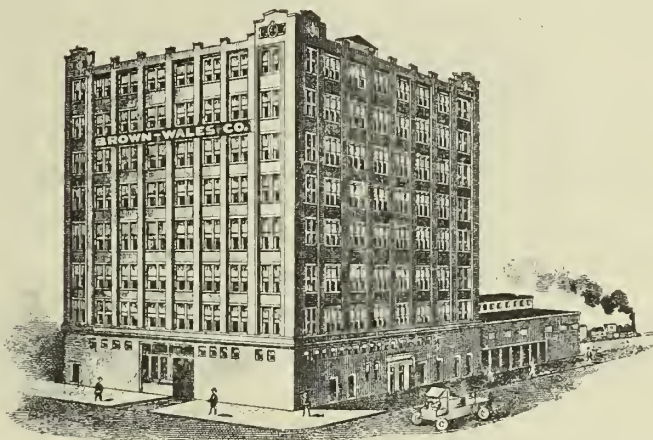
On the seventh floor are the mailing, billing and claim

intendent and machine designers are found on the eleventh floor.

The building was designed by Holabird & Roche, architects, Chicago, and Geo. A. Fuller Co. were the contractors. Thos. Conlin Co. did the plumbing.

#### OPENING OF BROWN-WALES COMPANY'S NEW BUILDING AT BOSTON.

On January 27th the many friends and customers of the Brown-Wales Company were treated to a view of their new eight-story building on C, Fargo and Egmont Streets, near Summer Street, Boston. Provision had been made for the transportation of the guests from the



New Building of Brown-Wales Co., Boston, Mass.

South Station by a big sight-seeing auto, which carried the loads on regular fifteen-minute trips between the hours of two and five o'clock.

The visitors were welcomed by William Q. Wales, president and treasurer, Quincy W. Wales, assistant treasurer, and W. H. Schurtleff, secretary, assisted by the salesmen. The guests were shown through the entire building which was resplendent with decorations for the occasion. Refreshments were served in the salesroom on the sixth floor.

The new location has special advantage in its switch facilities with the New Haven Railroad, and is near the Commonwealth Docks. The building is of brick in a very pleasing style of architecture. It has a total floor area of about 12,000 square feet. It is fully fireproof and is particularly well suited for the handling of pipe, metals, sheet iron and steel, plumbing supplies and other materials handled by the company.

#### THE GAS APPLIANCE SALES CO. ORGANIZED.

The Gas Appliance Sales Company of America has been organized at Philadelphia, Pa., with general offices at 18-24 South Seventh Street, in that city. The business of the company will be the promotion of gas appliances, particularly the "Electric Weld" combination boiler and gas water heater—in both automatic and non-automatic types. The company has taken over the fourteen branch offices of the John Wood Mfg. Co. and these in number will be gradually increased. At the stockholders' meeting, held on January 23, the following officers and directors were elected: H. E. Gilbert, president; James Hambly, manager Pacific coast branches, vice-president; Herbert F. Lewis, secretary; Harry G. Peck, treasurer. The directors are the above and Frederic Ruoff, manager of Kansas City branch; E. G. Pratt, jr., manager of Chicago branch; Wm. F. Lawlor, manager of Syracuse, N. Y., branch.



New Office Building of Crane Co., Chicago.

departments and a barber shop for the office employees only.

The eighth floor is occupied by order, complaint and filing departments.

The stationery, catalogue and art departments and the "Valve World" have headquarters on the ninth floor.

The tenth floor is occupied by the mechanical department, drafting and blueprint rooms and the general super-



## NEW WAREHOUSE OF LEADER IRON WORKS AT OWEGO, N. Y.

We are able to show on this page a view of the new plant of the Leader Iron Works at Owego, N. Y., where the eastern business of the company is transacted. About a year ago the Leader Iron Works secured five acres of land at that point, with switches leading from both the Erie and Lackawanna railroads, and have constructed a



The New Warehouse of the Leader Iron Works, at Owego, N. Y.

reinforced concrete building with storage yards, cranes, etc., which give them most excellent shipping facilities. The warehouse contains about 12,000 square feet of floor space, so that a complete stock can be carried for prompt shipment.

Pumping machinery, power and tanks are carried in stock at Owego in large quantities, in fact, at times there is a larger stock there than at the factory at Decatur.

All business of the Leader Iron Works east of the Ohio river is handled from Owego, N. Y., and the sales department at 15 William street, New York City, is a branch of the Owego plant. This makes it possible for the trade to secure goods from Owego at the same prices they would have to pay if adjacent to the Decatur plant.

The spring season will see the Owego plant prepared to deliver promptly to the entire eastern territory the new goods being put out by the Leader Iron Works. An engineering department is maintained at Owego, which prepares plans and sketches to aid the trade in lining up and selling water systems.

All dealers in water supply goods as well as architects and engineers are invited to visit the plants at either Decatur, Ill., or Owego, N. Y., at any time and see the equipment in operation.

The Leader Iron Works state that the possibilities for 1913 business are very bright and that the month of January shows the largest sales of any winter month since they were organized, in spite of the fact that the Leader product has usually sold for higher prices than the market.

## NEW CATALOGUE BY MASON CITY SUPPLY CO.

The Mason City Supply Co., Mason City, Ia., the new northern Iowa supply house, will issue about the middle of February a new catalogue of three hundred and fifty pages showing its complete line of plumbing and heating

supplies. The catalogue will be bound in flexible leather covers and will undoubtedly be a valuable aid to the company in pushing its business.

## CATALOGUE OF McLANE MANUFACTURING CO.

The McLane Manufacturing Co., Mulford, N. H., recently issued a new catalogue of its line of tanks and seats which shows up in a pleasing manner the various styles

manufactured by this company. The cover is embossed and the body of the catalogue is printed on an especially high quality of enamel paper, which shows up the cuts in the very best shape. The company will be glad to mail a copy of the catalogue to those interested upon mention of "Domestic Engineering."



R. E. Crane, president of the Eljer Co., Cameron, W. Va., was in New York City last week and called on some of his many friends in the trade.

Paul Heiland has been engaged by The Sanitary Co., of Cleveland, O., as its representative in New York and adjacent territory.

E. T. Curry, formerly connected with the United Brass Mfg. Co., of Cleveland, O., has recently joined the field force of The Sanitary Co., of Cleveland, O., and will call on the New England trade with headquarters at Boston.

A. M. Brehm, of 25 W. Forty-second Street, New York City, has recently made arrangements with the Chicago Faucet Co., Chicago, to look after this company's business in eastern territory east of and including Pittsburgh, Pa.

Robert Vesey, who has been identified with the sale of brass goods for a number of years, has recently connected himself with The Sanitary Co. of Cleveland, and will call on the plumbing trade in Washington, Oregon and British Columbia.

H. C. Miller, with Hineline & Co., plumbers, of Minneapolis, was a Chicago visitor this week and dropped in

at the office of "Domestic Engineering." Among other things he insisted that the paper should reach him regularly at his home.

Lew Phillips has recently connected himself with The Sanitary Co., Cleveland, O., and will call on the plumbing trade in Michigan and Indiana, with headquarters at Detroit.

George A. Small, who has for the last eight years been on the sales force of the Gurney Heater Mfg. Co., of Boston, Mass., covering New England territory, has been transferred to the New York office of that company, and he will in the future cover the territory adjacent to the latter city. His many friends in the trade will be interested to know of this change in his address, and will wish him success in the new sphere of his activity.

Thomas Kelly, of Thomas Kelly & Bros., manufacturers of permanent plumbing goods, Chicago, is at the present time visiting friends in Jacksonville, Fla., where he last week met James Coons and E. J. Golder of Coons & Golder, one of the leading plumbing firms in that state. Both Mr. Coons and Mr. Golder are members of the Jacksonville board of trade and they also are enthusiastic about Kelly closets to the extent that they guarantee them free of repairs as long as the firm is in business. It pleased Mr. Kelly very much to hear this news.

#### J. BENEDICT CLARKE AGAIN ON THE JOB.



J. Benedict Clarke. One of the energetic and successful salesmen in the southern states several years ago was J. Benedict Clarke, representing the Central Brass Mfg. Co., of Cleveland, O. On account of his health, however, he was obliged to remove to a Wyoming ranch, which he did some years ago. His many friends in the trade, however, will be glad to know that he has fully recovered and is again traveling the southern territory for his former employers.

His thorough familiarity with the needs of the southern trade and his wide acquaintance make such an announcement especially pleasing. His familiarity with the merits of the

Quick-pressure Work made by the Central Brass Mfg. Co. will, with his renewed vigor, make him a factor in the trade that will mean service to his customers and orders for his house.

#### THE MARK MALLEABLE KIT PIPE-VICE.

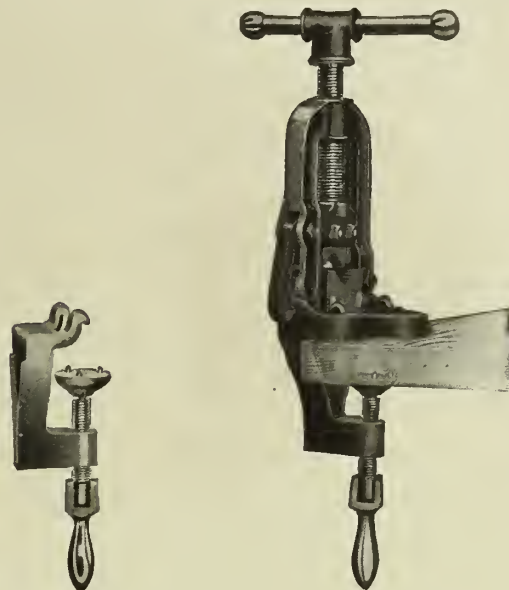
The Mark Manufacturing Co., of Chicago, Ill., is putting on the market a malleable kit pipe-vice which is said to be proving very popular with plumbers and steam-fitters. It consists of their standard pipe vise, with the addition of a detachable clamp for fastening it in position easily and quickly.

This clamp simply hooks onto the base of the vise, without the use of bolts or tools of any kind. The vise can then be clamped securely to the work-bench by turning the screw at the bottom. The swivelled handle provides leverage enough to fasten the vise rigidly and

easily. If it should ever be necessary to use it on a post or similar place, the clamp can be unhooked instantly and the usual lag-screws substituted.

On repair jobs it is particularly handy as it is light in weight, and the ease with which it can be attached to the tail-board of a wagon, or in any convenient location, renders it serviceable at times when the ordinary vise cannot be used.

The kit vise is made in two sizes. Number 0, weighing



The Mark Malleable Kit Pipe-Vise.

7 $\frac{3}{4}$  lb. holds from  $\frac{1}{8}$ -in. to 2-in. pipe, and number 1, weighing 15 $\frac{3}{4}$  lb., holds from  $\frac{1}{8}$ -in. to 2 $\frac{1}{2}$ -in. pipe.

It is made from the best quality of malleable iron and guaranteed against breakage.

Full information regarding this vise and the entire line of plumbers' tools manufactured by this company will be sent in response to inquiries addressed to them at P. O. Box G, Chicago.

#### ANNUAL BANQUET OF THE MASTER PLUMBERS AT SPRINGFIELD, MASS.

The 26th annual banquet of the Springfield, Mass., Master Plumbers' Association was held at the Highland Hotel in that city on Tuesday evening, January 28, and was attended by more than one hundred members and guests. Previous to the banquet a short business session was held at which officers were elected for the year as follows: President, J. G. Howland; vice-president, H. W. Lloyd; secretary, John Davis; treasurer, L. W. Dunlap.

Police Commissioner John W. Kennelly, a member of the association, acted as toastmaster at the exercises following the banquet. The speakers included Building Inspector Fred W. Lumis, of Springfield; Plumbing Inspectors Frank W. Tower and Ernest G. Bates, of Springfield; Plumbing Inspector T. J. Collins, of Northampton; Plumbing Inspector Frank L. Avery, of Holyoke, and T. J. Ryan, of Springfield. Representatives of the journeymens' union were also guests. During the evening music was furnished by an orchestra.

With the January issue, a new monthly trade magazine covering the lighting field, makes its bow. It is edited and published by Norman Macbeth with offices in the Hudson Terminal Building, 50 Church Street, New York City.



# Convention Dates



February 18, 19 and 20, 1913.—The twenty-second annual convention of the Ohio State Association of Master Plumbers, at Toledo, O., with headquarters at the Boody House. The officers of the association are: President, John F. Drees, Cleveland; vice-president, F. W. Sponseller, Canton; secretary-treasurer, Eb Ellen, 2057 East 93rd street, Cleveland; board of directors, Harry S. Smith, Warren; Wm. E. Girkins, Toledo; John J. Vogelpohl, Cincinnati; Charles Hoffman, Mansfield.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The sessions will be held at the Builders' Exchange. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinaber, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

February 19, 1913.—Winter meeting of the Eastern Supply Association, at the Hotel Astor, New York City. The secretary of the association is Frank S. Hanley, 261 Broadway, New York City.

February 20 and 21, 1913.—Annual convention of the Nebraska Master Plumbers' Association, at Fremont, Neb., with headquarters at the Eno Hotel. The officers of the association are: President, J. C. Bixby, Omaha; vice-president, G. H. Wentz, Lincoln; treasurer, F. W. Barclay, Beatrice; secretary, J. B. Coningham, 401 City National Bank Bldg., Omaha.

February 24 and 25, 1913.—Annual convention of the Missouri State Association of Master Plumbers at Joplin, Mo., with headquarters at the Connors Hotel. The officers of the association are: President, Edward C. C. Reisel, St. Louis, Mo.; first vice-president, G. A. Wood, Springfield, Mo.; second vice-president, H. B. Schulte, Joplin, Mo.; treasurer, Jas. P. Carroll, St. Louis, Mo.; secretary, C. L. Smith, Kansas City, Mo.

February 26, 1913.—Winter meeting of the Central Supply Association, at the Hotel Sherman, Chicago. The secretary of the association is Paul Blatchford, 1915 City Hall Square Bldg., Chicago.

March 11 and 12, 1913.—Annual convention of the New York State Master Plumbers' Association at Buffalo, N. Y., with headquarters at Hotel Iroquois. The officers of the association are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, 161 Columbus avenue, New York City; executive clerk, John E. Dugan, 4 Monroe street, Albany, N. Y.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 14 and 15, 1913.—First annual meeting of the National Pipe and Supplies Association, at the Hotel Sherman, Chicago. The general secretary of the association is George D. McIlvaine, of Pittsburgh, Pa.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are:

President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

May 20, 21 and 22, 1913.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky. The officers of the society are: President, Thomas J. Claffy, City Hall, Chicago; vice-presidents, Dr. H. K. Beatty, Pittsburgh, Pa.; W. J. Yackley, Dayton, O., Charles M. McHugh, Cedar Rapids, Ia., R. H. Ellithorpe, Fresno, Cal., Jas. E. McGrath, Louisville, Ky.; secretary and treasurer, L. J. Lawler, Pittsburgh, Pa.

May 27, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind. The officers of the association are President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

June 23, 24 and 25, 1913.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gomers, 260 West Broadway, New York City.

## The Metal Market



### PIG IRON.

Some slight weakness is noted in pig iron in Birmingham and resold lots are offered at \$13.50 for No. 2. In the Northern districts, however, prices are firm with a very fair demand. The most favorable thing of the situation this year is the reduction of stock. They were 1,400,000 tons on Jan. 1, 1912, and approximately 600,000 on Jan. 1, 1913. Quotations are as follows:

No. 2 Southern Foundry, Birmingham.....	\$13.50 to \$14.00
No. 2X Northern Foundry, New York.....	18.25 to 18.50
No. 2 Plain Northern Foundry, New York.....	18.00 to 18.25
No. 2 Southern Foundry, Cincinnati.....	16.75 to 17.25
No. 2 Northern Foundry, Chicago.....	18.00

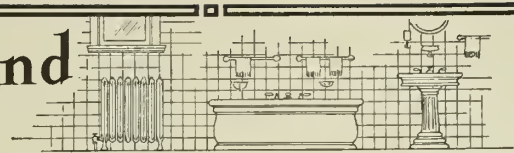
### COPPER.

The largest selling agents in the copper markets are maintaining their prices of 16 cents and a fair quantity of metal for delivery during the present month, has been disposed of. Consumers are unwilling to make contracts for longer periods and sellers are not pressing their supplies on the market. Those conversant with the situation believe that price must go lower before any large business is transacted.

### LEAD.

No very large business has been done and the market is steady at the unchanged quotation of 4.25 to 4.35 New York.

# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—The Chicago Master Plumbers' Association held its regular monthly meeting Friday evening, February 7. The session was devoted principally to routine business.

The Thomas Conlin Co., 3978 Cottage Grove Avenue, expects to put the finishing touches to the plumbing installation in the Crane Company's new offices on Michigan Avenue within the next few days. The Conlin firm has also recently begun plumbing work on a building to be occupied by the Barret Mfg. Co., at Fifty-first Avenue and Sixteenth Street.

William L. Stoddard, a master plumber of San Francisco, was in this city recently, and called on several supply houses. He says trade conditions on the Coast are rather dull, but believes that things will be better than ever in the spring.

The board of directors of the American Society of Inspectors of Plumbing and Sanitary Engineers held a meeting last Monday afternoon at the rooms of the Bureau of Sanitation, City Hall. Thomas J. Claffy, president of the organization, presided. The question of closer co-operation between the society and the National Association of Master Plumbers, the United Association of Journeymen Plumbers, and the plumbing supply associations was discussed. The members of the board decided that they would recommend to the society at its next convention at Louisville that two memberships be extended to each of these associations, with the request that they send delegates to the annual sessions of the society. The out-of-town members of the board of directors of the society who were present at the meeting Monday, were: Lawrence J. Lawler, plumbing inspector of Pittsburgh, Pa.; Edward H. Donahoe, of Peoria; and F. H. Baker, of Springfield, Ill. Manufacturers or jobbers who wish to arrange for display space for exhibits at the society's convention at Louisville on May 20-22 of this year should communicate with James S. McGrath, plumbing inspector, Louisville, Ky.

H. Y. Carson, who is assisting Professor White in the engineering school at the University of Illinois, is preparing to make some experiments relative to plumbing installation in skyscrapers. Mr. Carson declares that owing to the difficulty of providing adequate equipment for experiments in venting or in pipe efficiency, his tests must be made under rather unfavorable conditions.

Charles B. Ball, chief sanitary inspector for Chicago, spoke at the weekly luncheon of the Cook County Real Estate Board on Tuesday last. He urged the enactment of a law to prevent people from living in basements or underground habitations. He said housing conditions in Chicago were far from what they should be. He also stated that one effect of bad housing conditions was industrial inefficiency.

Biloxi, Miss.—The Cooper-Greer Co. has secured the contract for the plumbing in the Southern Paper Mills Co.'s new plant at Laine, Miss.

## Kentucky

Louisville.—If current conditions continue very much longer in the plumbing and heating trades of Louisville and the South, the prospect of improved prices in all lines of supplies will be indefinitely postponed. Demand is at a very low stage with domestic engineers at present, and the only possible remedy in natural conditions affecting the trade will be a short, sharp break in the weather.

Constant but light rains, attended by very warm weather throughout this section of the country, have influenced the supply market very materially. Prices have been on the up-grade for six months past, but the interruption that has been encountered in January has set things at a standstill, and current demand does not justify any progress. While the increasing cost of raw materials will undoubtedly effect changes during some time to come, business, and consequently the market, is very slow at present.

Cellar drains and siphons are commodities for which there is unprecedented call at present in the Louisville plumbing trade. With new work progressing slowly, as it usually does at this time of the year, and not enough cold weather experienced to date to boom the repair department; sales of fixtures in general are sluggish with supply men, and comparatively little new installation is going on. But the excessive rains of the past fortnight have created widespread demand for drains and siphons, and the master plumbers have all of this work that they can attend to. In every low-lying section of the city there are stores and dwellings where water is settling in the basement. There are entirely inundated districts all along the river front, because of the flood stage of the Ohio river, and while the plumbers have very little to do with fighting the advance of the river, the flood stage has backed up water throughout the city's sewer system, and trunks or laterals, which are ordinarily fully capable of taking care of the sewage in their territory, are now over-taxed. This has given rise to an interesting condition in the plumbing trade. Where it is established that the back-water in cellars or basements is due to imperfect or inadequate sewerage, the city authorities make no charge to property owners for allowing fire engine companies to pump the surplus into the street and thence to the nearest catch basin. About half of the engines in the city are employed 18 hours out of every 24 at this work. The concession of the board of public works does not interfere with the plumbers, for the reason that this work is done only where sewerage is at fault. Where the location of a store or dwelling in itself is responsible for flooded cellar, the property owner calls a plumber and pays a fixed charge per hour for siphon, or drain, service.

Steamfitters and heating engineers are very much interested in the recent declaration of City Smoke Inspector Rutherford to the effect that the present smoke-prevention ordinance of the City of Louisville is inadequate



and incapable of being properly enforced in some respects. The greatest weakness of the statute, according to Inspector Rutherford, is that it does not prescribe an intelligent way to prevent excessive smoking by compelling proper firing. Most boilers in Louisville, he declares, possess too little space for coal combustion, their grades being built too close to their doors. An amendment to the ordinance providing for a regulation of boiler construction in this connection is strongly recommended by Mr. Rutherford. In a general way the present ordinance demands that every heating plant in Louisville employing more than 1,200 lineal feet of radiation equipment be provided with a smoke consumer or smoke preventer. It is along these lines that steps are taken for the enforcement of the law and many steam plant owners have been compelled to make the required improvements. The percentage of smoke in the city's atmosphere has been reduced very materially, and the municipal authorities promise that it will be eliminated altogether if they can secure the consent of the city council to further regulation of steam equipment installation.

William McMahon, a heating engineer of Paducah, Ky., died recently at his home in that city after a short illness with a complication of diseases. Mr. McMahon was a veteran member of the Western Kentucky trade and was pioneer in introducing modern types of heating to the Pennyryle section.

The Continental Hotel Co., of Pineville, Ky., will award the contract shortly for steam heating equipment to be installed in its new hostelry in that city. R. F. Graf & Sons, of Knoxville, Tenn., being the architects for the work.

## Ohio

Mansfield.—E. F. Malone, 134 N. Main street, is doing the heating and ventilating in the new F. O. E. Temple on N. Main street.

The new federal building now under construction in this city is 92x88 ft., two stories and basement. Oscar Wenderoff, architect; James Corse, 1206 Park avenue, Racine, Wis., general contractor. Plumbing contract has not been awarded.

Galion.—H. C. Stonhauer, 316 E. Main street, is doing the plumbing, vapor heating, gas fitting and high pressure work at Telephone Improvement Co.

C. B. Lemon, 250 Market street, is completing two jobs of plumbing in new houses in Marion, O.

Bucyrus.—Hilborn & Faulkner, Sandusky avenue, are starting plumbing and vapor heating job at Garret White's residence on Southern avenue, amounting to \$1,200.

Henry Myer, jr., Rensselaer street, has just finished heating plant in H. A. Paxton's garage on Sandusky avenue, amounting to \$1,300.

Marion.—Hildred & Pace, 118 Church street, are completing nine plumbing and five hot water heating contracts in new houses. This week they will start work on ten plumbing and nine hot water heating contracts. Work will amount to about \$10,000.

O. J. Boger Plumbing & Heating Co. are starting plumbing and steam heating work at Central fire department, amounting to \$3,000.

T. M. Cunningham Plumbing Co., 205 S. Main street, is installing plumbing in new Liebold building, S. M. in street.

The B. P. O. E. are contemplating building new home on State street, on old Opera House site. Three-story

structure. First floor will be used for business purposes; second floor will be social rooms; third floor, lodge room. Contracts for plumbing and heating have not been awarded.

Cincinnati.—Slowly but surely prospects are materializing into definite business and a gradual increase in the number of requests for sketches from architects is noticeable. It is a well-known fact that Cincinnatians delay consulting architects until the months of March and April, at which time the architects are usually deluged with business; whereas, an earlier interview would result in better service and cheaper prices, as contractors are anxious to get started on new contracts.

Murphy & Ditchen were awarded a contract to install plumbing in the new theater to be erected on Erie Avenue, near Edwards Road, Hyde Park.

The property located on the northwest corner of Highland and McMillan streets will be improved with a three-story modern flat building, containing six flats. Newcomb & Jenkins will be the architects and builders.

Frank Niesen & Co. are doing the plumbing in the flat building being erected for Mrs. K. Krehnbrink, on Cleinview Avenue, as per plans by Anthony Kunz, architect.

Another large flat building is to be erected in Corryville, opposite the Vine Street power house, by Mr. August Kenkel, on lot adjoining his recently erected flats. The new flat building is to be four stories in height and to be modern in all details.

Schwarz & Fern have closed contracts to do the plumbing in remodeling work for Dr. J. B. Blunden, at 2137 West Ninth Street; a new residence for John Lipps, on Denham Street, and a residence for Walter Weber, on the north side of Gest Street.

Other contracts awarded were to J. J. Vogelpohl, residence for Frank Gilfillen, on Donaldson Street; William J. Winter, for the Co-operative Improvement Co., at 3666 Reading Road; Gibson-Schlemmer Co., for Power building for Mr. M. Durner, located at 511 Sycamore Street, and to J. G. Baes, for three residences to be built in Madisonville by Rhinehardt & Addison.

A \$25,000 public garage will be built on the north side of Seventh Street, near Central Avenue, by Telford Groesbeck, as designed by Stanton Robinson, architect. L. W. Waldron has the general contract.

S. E. Harvout, 3348 Bonaparte Avenue, will erect four St. Louis apartments and one bungalow, costing \$6,000 each, on Durrell and Gilbert avenues. Work on these is to be started in the spring.

## Pennsylvania

The members of the Pittsburgh Association are on the job and are now preparing to make the Pennsylvania state convention the biggest and best convention that the state has ever held. The Pittsburgh slogan is "Pittsburgh Promotes Progress" and the Pittsburgh Master Plumbers' Association is going to show that it is part of this "progress" scheme and send out the advance notice that this convention will be a "hammer." Good live committees are at work and they have already selected the Fort Pitt hotel, Tenth street and Penn avenue, for headquarters. This will also be the meeting place for the convention and the banquet will be served in the English room. Following are the names of the committees that have been appointed:

Hotel and banquet committee—W. H. Rowsell, chair-

man; E. M. Tate, S. S. White, John B. Paul, Geo. Rodgers and Jacob Soffel.

Finance committee—M. Purtil, chairman; Harvey Lewis, jr.; H. M. Hay, M. S. Martin, A. McFadden, Geo. Rodgers, J. C. Leubin, W. N. Sauer, W. J. Elkin and T. F. Scanlon.

Entertainment committee—M. Snively, chairman; Robert Henderson, J. A. Weldom, T. R. Marshall, J. C. Godfrey, H. R. Wickes, John Provan, J. W. Scott, C. L. Rufing and C. M. Swift.

Train reception committee—Geo. B. Stewart, chairman; F. J. Scheib, J. D. Stanton, Andrew Frishkorn, Thomas Grace, J. L. Ewens, Peter Raehn, C. L. Bachman, jr.; J. F. Matter, A. J. Zilliox, J. A. Sweeney, F. J. Fleischel, H. T. McAdams, Bernard Wagler, H. T. Barr, H. H. Brown, Frank Holt, H. Harrison, H. A. Knauff, Earl S. Aurandt, Joseph M. Drum and Geo. M. Miller.

Hotel reception committee—Claude E. List, chairman; F. J. Blakeley, Geo. F. Schade, jr.; Geo. Sheets, C. C. Deer, A. C. Good, C. M. Sahner, R. J. Hannan, J. B. Paul, J. K. McBride, A. Redenbaugh, W. E. Rowbottom, Frank McKnight, Frederick Webster, H. R. Bloedel, A. C. Boerner, D. G. Deeley, J. J. Kennedy, Ira A. Mann and W. T. McKissock.

Badge committee—W. J. Elkin, chairman; S. S. White and E. M. Tate.

The following officers were elected for the Pittsburgh Master Plumbers' Association to serve for the year 1913: President, F. J. Hanley; first vice-president, J. D. Stanton; second vice-president, J. F. Matter; secretary and treasurer, E. M. Tate; sergeant-at-arms, C. E. List; ex-officio, W. H. Rowswell; members-at-large, A. Redenbaugh, H. R. Wickes and M. S. Martin. The new president also announced the following committees to serve during the year:

Investigating committee—F. J. Hanley, chairman; J. D. Stanton, J. F. Matter, E. M. Tate, C. E. List, W. H. Rowswell, A. Redenbaugh, H. R. Wickes and M. S. Martin.

Auditing committee—Geo. B. Stewart, chairman; P. J. Montague and H. M. Hay.

Entertainment committee—Robert Henderson, chairman; T. F. Scanlon, F. J. Scheib, Joseph M. Drum and Geo. F. Schade, jr.

The association will hold its second annual banquet at the Fort Pitt hotel on Monday evening, Feb. 17th. The following committee has been appointed to take charge:

Banquet and hotel committee—W. H. Rowswell, chairman; E. M. Tate, S. S. White, J. B. Paul, Geo. Rodgers and Jacob Soffel.

By a unanimous vote it was decided to have the ladies present at this banquet and as it is the first time that the Pittsburgh association has ever had the ladies at an affair of this kind, no doubt it will add tone to the banquet and the male members will enjoy themselves much more than they did when they so selfishly kept all these good things to themselves. The last banquet, which was held at the Hotel Henry, was such a delightful affair that a great many of the members agreed that they would not be present at another banquet unless they could bring their wives or sweethearts to share in the pleasure.

Philadelphia.—Chas. E. Hanson, 3824 Germantown avenue, has been awarded the heating and plumbing contract in the residence of Mrs. Carty, 136 W. Price street, Germantown, Pa.

I. D. Rea, 2521 N. 18th street, has just opened a new plumbing and heating establishment at the above address. Mr. Rea would be pleased to receive catalogues

and literature from the various manufacturers and jobbers.

Walter Walker, 2031 E. Cheltenham avenue, is introducing plumbing in the residence at 2508 N. Dover street.

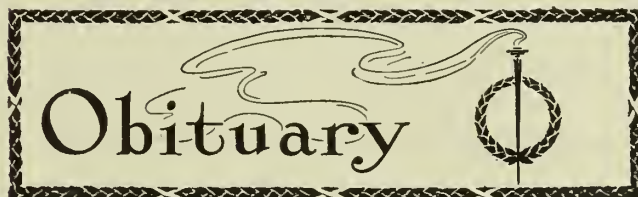
T. T. Rockett, 629 N. 19th street, is making extensive alterations in the plumbing system in the Mardello apartment house, 33rd and Powelton avenue.

A two-story manufacturing building will be erected for B. Bernheim & Sons, after plans by Peter Kuhn, architect, at 312-14-16 Master street, at a cost of \$5,500.

The old established plumbing firm of Boon & Sample have sold their building at 1737 Filbert street to the Pennsylvania Railroad. The property is adjacent to the corner of Eighteenth street, and is assessed at \$25,000. Size of lot, 19x117 feet. This block is gradually being acquired by the railroad for the purpose of ultimately extending its train shed over Filbert street to Cuthbert. Properties still to be acquired are 1701-1705 and 1713-1723.

Trustees of the Presbytery of Philadelphia have purchased the lot on the northeast corner of 25th street and Indiana avenue, which is now occupied by the temporary chapel of the Knox Presbyterian Church. A large stone church will be erected on the site by the present congregation, to cost \$70,000.

A \$300,000 building for the Graduate School of the University of Pennsylvania will be built upon the southeast corner of 34th and Walnut streets. Built of brick and stone, the structure will be in the English style of architecture. Light and heat will be supplied from the central power plant. Stewardson & Page are the architects.



#### Charles E. West.

Charles E. West, who was engaged in the plumbing business in Pittsburgh, Pa., for many years, died last week at the residence of his sister in that city, aged sixty years. He is survived by two sons and one daughter.

#### J. C. Miller.

J. C. Miller, founder and president of the J. C. Miller Plumbing Co., Coshocton, O., and one of the best known master plumbers in that part of the country, died last week at his home in that city. Mr. Miller was a veteran of the civil war.

#### John L. Earl.

John L. Earl, senior member of the steam and hot-water fitting firm of Earl & Cook, Newark, N. J., died Sunday, January 19, aged forty-six years.

Mr. Earl was born near Morristown, N. J., in 1867, and spent his early life on a farm until his parents removed to Newark.

Mr. Earl was apprenticed with Denny Bros., where he remained after serving his apprenticeship for about sixteen years. Upon leaving Denny Bros. he formed a partnership with Elwood Cook under the firm name of Earl & Cook, which in 1906 was incorporated under the name of Earl & Cook Co.

Mr. Earl was a member of the following organizations: Master Steam and Hot Water Fitters' Association; Roseville Lodge, F. & A. M. 143; Radiant Star Lodge 190, I. O. O. F.; W. W. Phelps Council 180, Junior O. U. A. M.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

## Situations Open.

A LARGE PRINTING HOUSE HAS excellent positions to offer young men who are experienced in compiling catalogues for the plumbing, steam and mill supply trade; also positions for young men with a knowledge of plumbing, steam and mill supply materials. Address Box 918, care of "Domestic Engineering," Chicago.

1-25, 2-1-8

WANTED—FIRST CLASS SALESMAN to cover territory in southern Michigan, northern Ohio and Indiana; one who understands the general heating and plumbing line. Give experiences, references and salary expected. Address Box 921, "Domestic Engineering," Chicago.

WANTED—YOUNG MAN TO ACT AS assistant bill clerk in plumbing supply house, Cleveland. Must have experience. State age, salary and references. Address Box 923, care of "Domestic Engineering," Chicago, Ill.

2-8-15

WANTED—EXPERIENCED MAGAZINE Subscription Salespeople who can forcefully and convincingly present the varied features of technical magazines, to travel Southern States this winter. Bond and references must be given. Commission contract worth \$100.00 to the right party. Address Box 897, care of "Domestic Engineering," Chicago, Ill.

tf

WANTED—TRAVELING SALESMAN for plumbing supply house to cover Northern Ohio. Must be experienced, sober and industrious. State salary and references. Address Box 922, care of "Domestic Engineering," Chicago, Ill.

2-8-15

SALESMEN WANTED TO REPRESENT us in the city of Chicago; one who has had some experience in the plumbing business preferred. Must come well recommended and capable of considerable hard work. Woodward-Wanger Co., 1106 Vine St., Philadelphia, Pa.

2-8

WANTED—A HIGH CLASS PLUMBING supply salesman for Chicago. Address Box 924, care "Domestic Engineering," Chicago, Ill.

2-8

## For Sale

### WELL EQUIPPED SOIL PIPE PLANT

in Birmingham district, all ready to step right into and do business; will be sold at attractive figure. For detail address Harry Verbeek, City Hall Square Bldg., Chicago, Ill.

FOR SALE—PLUMBING, HEATING & sheet metal business in the sunny San Luis Valley. Only shop in five small towns. Plenty of business and good prices. Invoice about \$800.00. Write for full particulars. Address Jos. M. Fleming, La Jara, Colo.

2-8

A SNAP—PLUMBING AND HEATING business, established for twenty years and located in best city in southwest, for sale. Reason—retiring from business. Address Box 919, care of "Domestic Engineering," Chicago, Ill.

2-1, 8, 15, 22

J. Benedict Clarke.

## Miscellaneous

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W. Lake St., Chicago. tf.

PLANT WANTED—WE WANT TO PURCHASE a plant for manufacturing hot water boilers. Must be complete. State approximate price, describe equipment and give location. Address Box 910, care of "Domestic Engineering," Chicago, Ill.

1-18-25 2-1-8-15-22

## GOVERNMENT PROPOSALS.

PROPOSALS FOR INDIAN SUPPLIES—Department of the Interior, Office of Indian Affairs, Washington, D. C., January 15, 1913. Sealed proposals, plainly marked on the outside of the sealed envelope: "Proposal for Indian Supplies, Chicago, Ill.," and addressed to the "Commissioner of Indian Affairs, Sixteenth and Canal Streets, Chicago, Ill.," will be received until 1 o'clock p. m. of Monday, February 24, 1913, and then opened, for furnishing the Indian Service with enameled and glass ware, wagons, tinware, stoves, hardware, boots and shoes, etc. Bids must be made out on Government blanks. Schedules giving all necessary information for bidders will be furnished upon application to the Indian Office, Washington, D. C., and the U. S. Indian Warehouses at New York City, Chicago, St. Louis, Omaha, and San Francisco. The Department reserves the right to reject any and all bids or any part of any bid. F. H. Abbott, Acting Commissioner.

2-1, 8, 15

TREASURY DEPARTMENT, OFFICE of the supervising architect, Washington, D. C., January 23, 1913. Sealed proposals will be received at this office until 2 o'clock p. m. on February 20, 1913, and then opened, for new plumbing fixtures, etc., at the United States post office, Saginaw, Mich., in accordance with the specification and drawing enumerated therein, copies of which may be obtained from the custodian at Saginaw, Mich., or at this office, at the discretion of the Supervising Architect. Oscar Wenderoth, Supervising Architect.

2-1, 8, 15

## Books.

600 EASY WAYS TO DO HARD THINGS for only 50c. Our new 224-page book, Shop Notes, contains useful time and labor saving kinks for men in every trade. The subjects treated cover every department of mechanics. 500 illustrations. Price, 50c postpaid. "Popular Mechanics," Dept. D. E., 318 Washington St., Chicago.

2-8

## WE PUBLISH:

PLUMBING ESTIMATES AND CONTRACTS. By J. J. Cosgrove. Contains much valuable information for the master plumber, pointing the way to conduct the business of plumbing in business-like manner. Bound in cloth; 210 pages; 5½x8½ in.; postpaid, \$3.

SANITATION IN THE MODERN HOME. An invaluable guide to the architect, plumber, heating engineer and house owner, telling just what is necessary to make a home completely sanitary from the subsoil to the roof. 8x5½ in.; 277 pp.; bound in cloth. Postpaid, \$2.00.

TABLES FOR CALCULATING SIZES OF STEAM PIPES. These tables furnish a method of sizing the pipes for low pressure steam heating based upon the loss of pressure per lineal foot, without laborious mathematical calculations. Bound in cloth; 4½x6½ in.; 47 pp. Postpaid, \$2.00.

AIR VALVES FOR STEAM HEATING systems. By W. H. Wakeman, author of "Engineering Practice and Theory." Postpaid, 25 cents.

WROUGHT-PIPE DRAINAGE SYSTEMS. By J. J. Cosgrove. An invaluable aid to those who install iron pipe systems. Bound in cloth; 150 pages; 5½x8½ in.; postpaid, \$2.

"RULES AND DATA ON FAN HEATING and Ventilation," or "Flow of Steam Through Pipes" will answer the questions that have puzzled you. Practical. Blue print form. Thomas Tait, Moline, Ill.

8-17

MAKING THE BUSINESS PAY. Letters of John Burton, retired successful plumber and steamfitter, to his nephew still in business. Practical, instructive entertaining, a guide to better business. Cloth bound, 5½x7½ in.; 168 pp. Postpaid, \$1.00.

HEATING AND VENTILATING BUILDINGS. By Prof. R. C. Carpenter, Cornell University. Describes the latest improvements in the art of heating and ventilation for the technical readers. Bound in cloth, 9¼x6 in.; 562 pages; postpaid, \$4.

STANDARD HEATING SPECIFICATIONS AND CONTRACT BLANKS. For low pressure steam and hot-water heating apparatus offers a dignified legal form for specification proposal and contract for the general use of steam and hot-water heaters. Printed on linen paper; 14x8½ in.; 4 pages. Price of either steam or hot-water or mixed blank, 50 copies, \$2.50.

A MANUAL OF TECHNICAL PLUMBING AND SANITARY SCIENCE. By S. Barlow Bennett, Consulting Sanitary Engineer. Treats of every branch of the subject in a clear and practical manner; especially adapted to the needs of those making a thorough study of sanitation and public health. 9¼x6 in., 300 pages, over 400 diagrams and photographs, bound in cloth, postpaid, \$2.00.

A PRACTICAL MANUAL OF STEAM AND HOT-WATER HEATING. By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth, 5½x8½ in., 359 pp.; postpaid, \$2.50.

MODERN PLUMBING ILLUSTRATED. By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

## Address:

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago

Kindly quote "Domestic Engineering" in writing advertisers.



# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1053

CHICAGO, FEBRUARY 15, 1913

Vol. 62, No. 7

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

## EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

## ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

## TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

*Domestic Engineering* says: There are plenty of fellows willing to take a chance on a contract, just as in a horse race; the sure-shot, who plays close to the ground, is the one to win month after month and year after year.

## GETTING BEFORE THE PUBLIC.

ONE of the most lovable of men in public life in recent years, and one whose untimely taking away was a decided loss to the nation, was Governor John A. Johnson, of Minnesota. His kindly manner, his winning personality, his undoubted ability, were familiar to everyone.

The newspaper correspondents at the national capital were well aware of his personal characteristics, and when, about five years ago, he made a trip to talk before the Gridiron Club, the newspaper men's organization, he was well-nigh overwhelmed by the reception from these men.

As he sat on a stool at a lunch counter one of them called to the editor of a Washington paper, "Come over here; the governor wants you to tell him about your Washington alleys."

And after the preliminaries, a trip through Washington's slums and alleys, where some sixteen thousand of the city's population managed to exist, was undertaken by the governor, with the editor as his guide.

What he saw in this visit is almost indescribable. Filth was everywhere. In one house the governor walked on wooden blocks to keep above the

seepage which hid the floor under a shining cover of fluid mud. In another the plumbing was so defective that its drip, with all that such a drip implies, spattered the cook stove of the family below.

His excuse to gain entrance to these homes (shall we call them such?) was that used by many a social service worker. "I want to look at your plumbing," he would say, and would then be admitted without question.

When he talked to the members of the Gridiron Club that night, he had a heart full of human sympathy and a store of personal experience to draw from. And what he said was much to the point.

But why, may we ask, is it necessary to give as an excuse to enter a home—"I want to look at the plumbing"? Why not say, "I want to inspect the woodwork" or "I have come to look at your plastering"?

Why, unless it is that the plumbing is really a most important part of the plan of modern civilization? It has become a necessary part of our scheme of living, when rightly used; it becomes a virile poison when abused or neglected.

There is a broader mission for the plumber than simply the dollar-getting habit. This is right and proper in its way, and no plumber can long remain in business without a fair and legitimate profit.

But the responsibility of the plumber to the great mass of the public still remains, whether we wish to admit it or not. And the opportunity to be of practical service in educating this same public to what constitutes real sanitation, is more than ever before us.

In this opportunity, and this responsibility, lies profit for everyone in the trade. No conscientious effort put forth to place the real value of the plumber before the public will be lost.

Let this education come from the individual plumber, from the various local associations or from any other source. Let it be in the form of slides in motion picture shows, if you will; or the distribution of instructive literature.

To help this work along, we have printed on page 193 of this issue a short article that your local newspaper will be glad to print if you will hand it to the editor. Try it, and let us know how the idea appeals to you.



# Heating and Ventilating in Toledo Post Office

## The Hot Water Heating Installation in the Government Building at Toledo, Ohio, is Characteristic of Recent Government Contracts

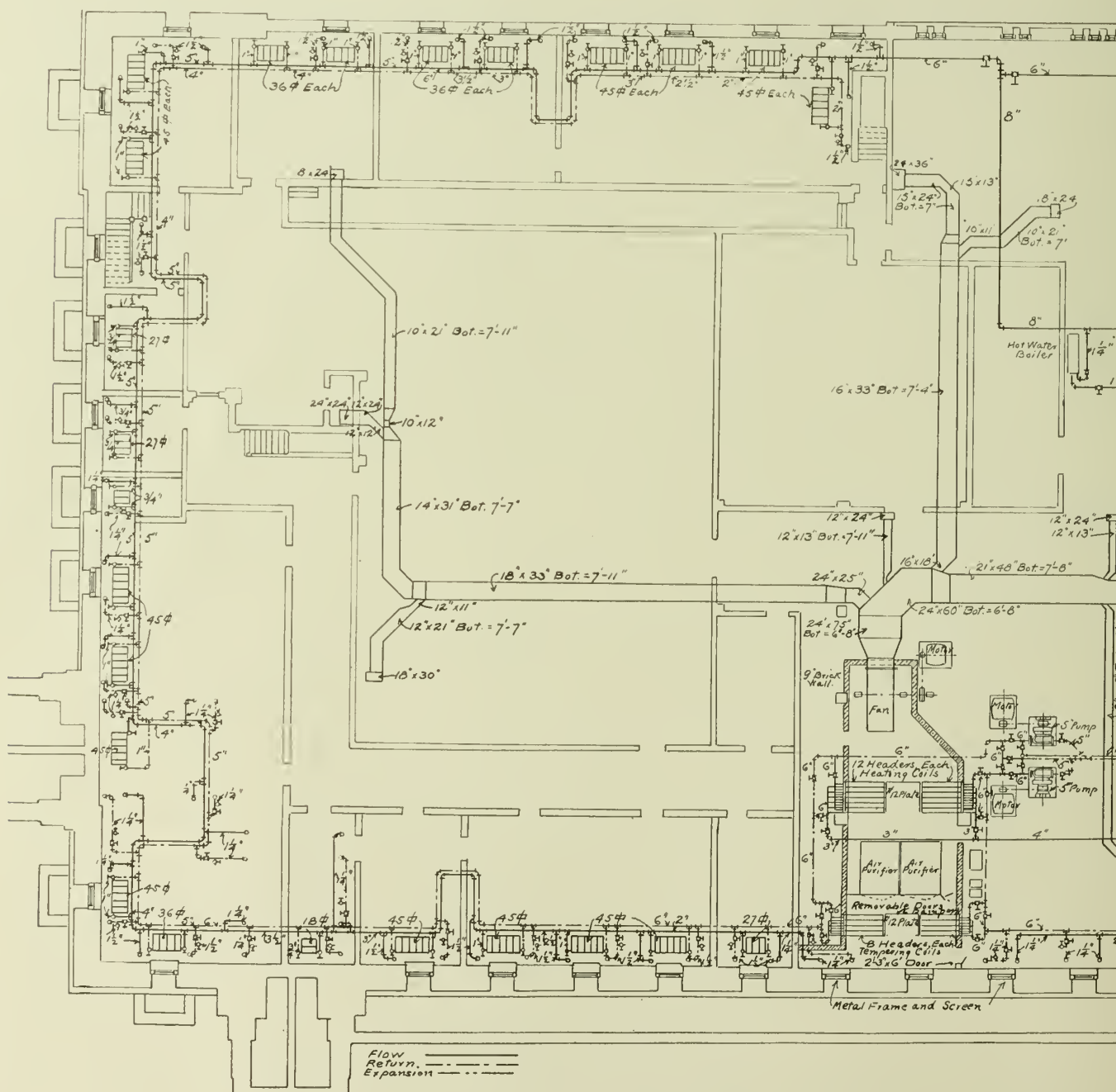
THE new post office at Toledo, Ohio, the plans of the heating and ventilating system of which are herewith reproduced is heated by a hot water system.

Provision is made to obtain service from outside heating flow mains located at the rear of the building, the outside service pipes being valved for cut-off to the heating pipes of the building. Flanged fittings and a flanged valve are provided on the return connection just inside of the basement wall.

The underground service mains outside of the building are thoroughly insulated in a box built of three thicknesses

of hemlock lumber with air spaces provided between each thickness, the whole being thoroughly wrapped with heavy tar paper. The space in the box around the pipes is packed with oil-soaked shavings. Two pressure gauges, graduated to 100 pounds, with 6-inch dials, are connected to the flow and return pipes inside of the controlling valves.

It has been the policy of the government engineers, when taking heat from general utility companies, to provide in addition sufficient boiler capacity to heat the building if there should be a breakdown in the system or for other reasons. In this case, three horizontal, double-



### Basement Plan of Hot Water Heating System

return, tubular boilers, 60 inches in diameter, were installed. The boilers are supported independently of the settings by I-beam columns and cross-beams, with suspension rods. The I-beam columns have bearing plates 14x14x1 inch thick, fastened to the bottom of the columns with 4x6-inch riveted angles.

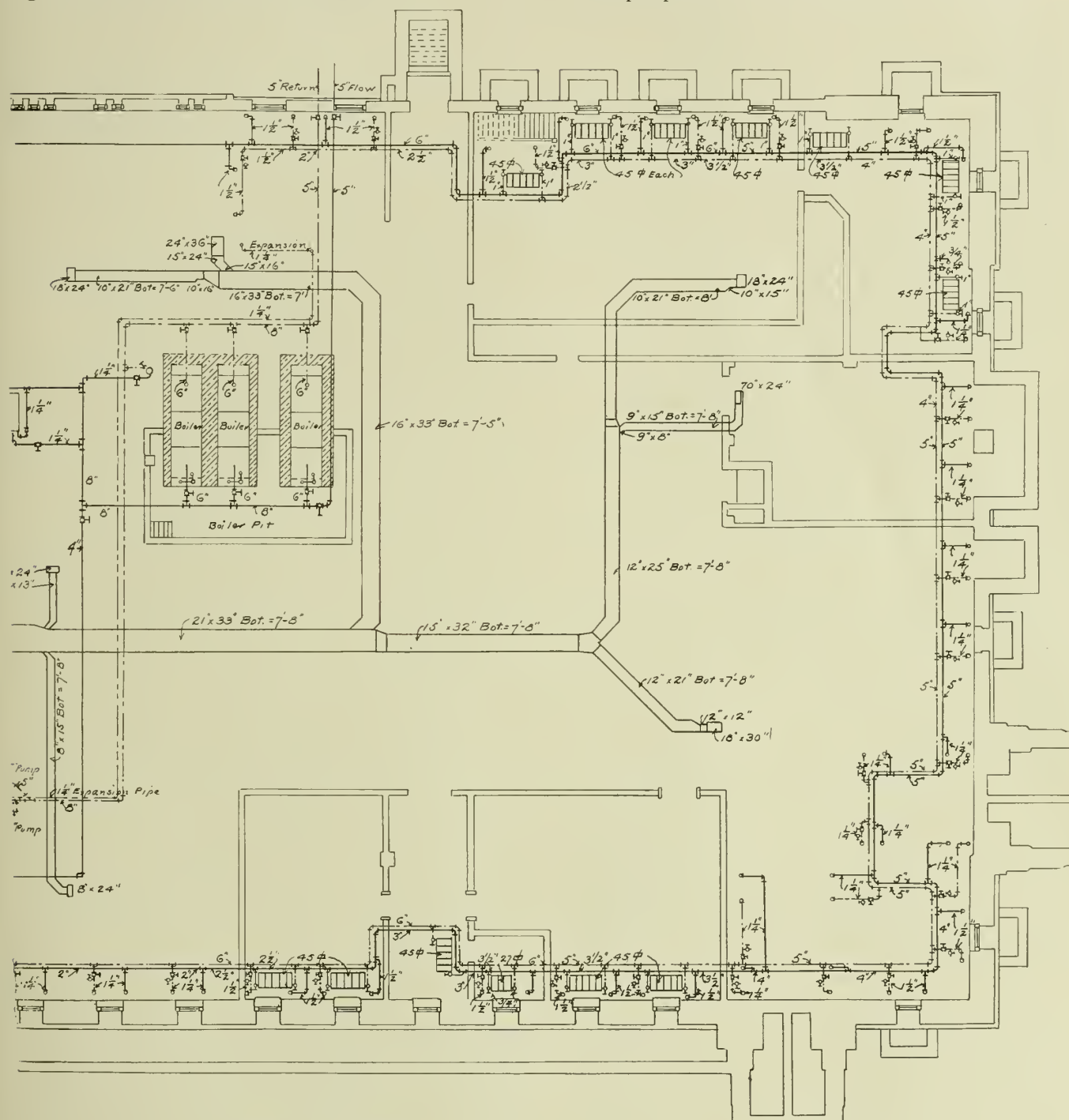
The boilers are enclosed in brick work bonded and laid in lime mortar above the basement floor level, and laid in Portland cement mortar below the basement floor level.

The water supply for the boilers is galvanized wrought iron pipe taken from the filtered water mains in the basement ceiling. The connection to each boiler is the size shown on plan, Fig. 1; and is made to the main return pipe and provided with a brass swinging check valve, with a gate valve on each side of the check valve.

A thermostatic, positive-acting damper regulator, having  $1\frac{1}{4}$  inch connections to the flow and return mains, is connected to the damper in the main smoke breaching. The flow and return connections are fitted with gate valves.

An expansion pipe is taken out of the suction pipes to the pumps, is valved and run to an expansion tank located in a closet on the first floor. It is constructed of steel  $\frac{1}{4}$ -inch thick, with heads 3-8-inch thick. The tank is 30 inches in diameter by 8 feet high, and is provided with a  $1\frac{1}{4}$ -inch air and expansion pipe and  $1\frac{1}{2}$ -inch overflow and vent pipe. The vent pipe is provided with a check valve, and the overflow pipe is run to the basement and discharges into a sink. The tank is supported on a tank stand constructed of T and angle iron.

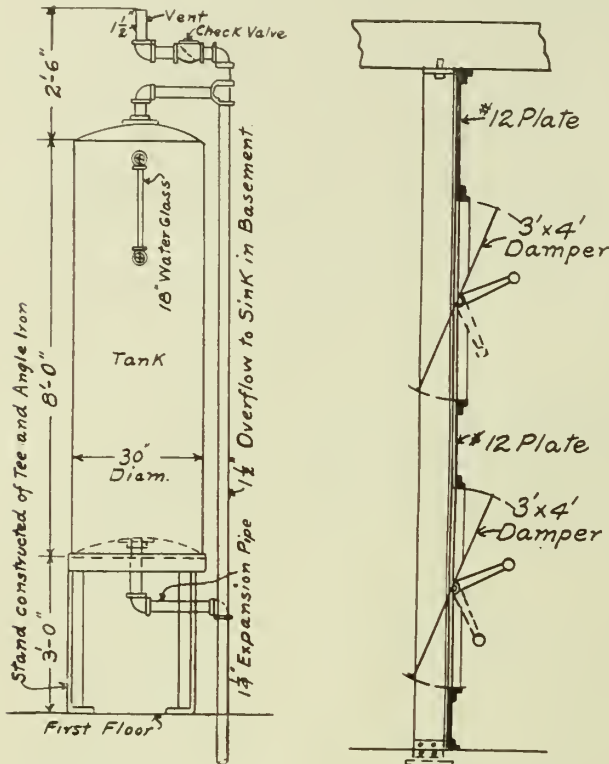
The pumps for the circulation of the water consist of





two double suction, top horizontal discharge, centrifugal pumps, having 6-inch suction and 5-inch discharge, fitted with pulley for belt drive from an electric motor, with a maximum speed of 514 revolutions per minute.

The pumps are mounted on a common cast iron base,



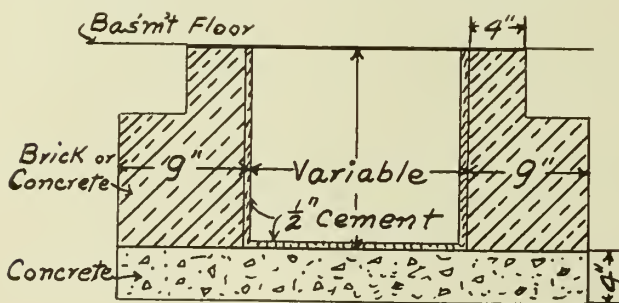
Expansion Tank.

Cross Section Through Dampers.

with raised rim to prevent oil and water running on the floor, and which rests on a concrete foundation.

The pumps are connected and valved so as to permit either pump being cut out of service. A pressure gauge, graduated to 50 pounds, with 6-inch dial, is connected to the suction pipe of each pump and to the main discharge from both pumps.

The return pipes below the basement flow are run in trenches, which are covered with cast-iron plates, diagonally channeled on top, with lap joints. The laps are arranged so that plates immediately over valves are in small sections and can be easily taken up. The tops of the cover plates are flush with the basement floor.



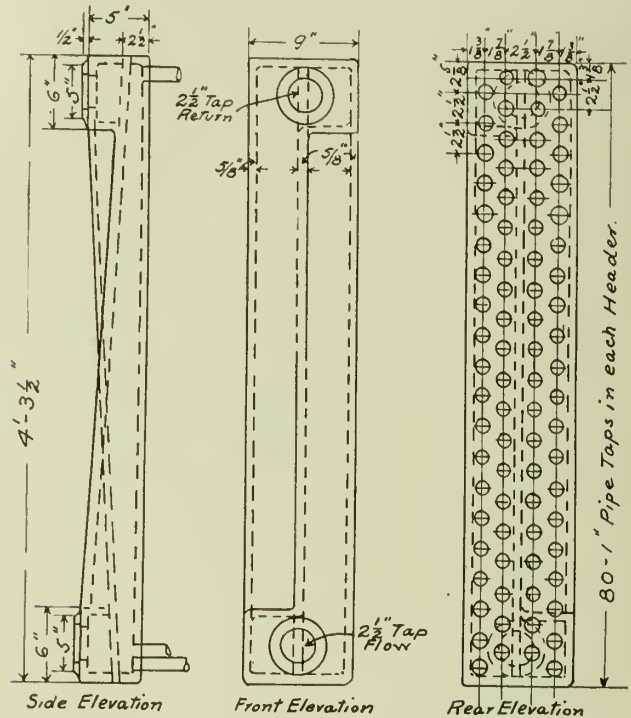
Detail of Pipe Trench.

The main flow and return pipes are run practically level, while the radiator branches have a pitch of  $\frac{1}{2}$  inch in 10 feet.

Long radius fittings are used on the flow and return mains, except at points where space will not permit their use.

Overhead pipes are supported every 10 feet by heavy adjustable wrought-iron expansion hangers. Where space will permit, the hangers are designed with a right and left coupling or turnbuckle in the vertical supporting rod or pipe. The pipes in trenches are supported on pipe rollers.

The hangers are supported from the floor construction



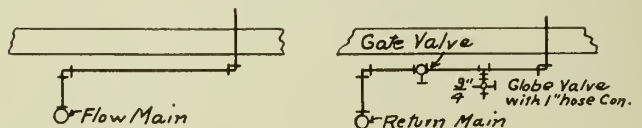
Cast Iron Headers for Tempering and Heating Coils.

and extend through to the under side of the finished floor, where they are provided with plates bedded in cement mortar.

Valves 2 inches in diameter, and smaller, are of the best grade of steam metal; valves  $2\frac{1}{2}$  inches in diameter and larger, have iron bodies with brass trimmings. All valves, except radiator and drain valves on branch radiator connections, are gate valves, with double non-corrosive seats. Globe valves are used for drains on first-floor radiator return branches.

The amount of radiating surface is marked on the plans. The direct radiators are cast iron sectional and are located as close to the wall or panel back as possible. The wall pattern radiators are hung at the basement ceiling with adjustable hangers.

All direct radiators, except those located under windows, are provided with deflecting shields. The bottom of the shields is set about the height of radiator above the



Detail of First Floor Radiator Connections.

floor, and the shield extends to just over the top of the radiator. The two sides and top of the shields are curved with a radius of 2 inches for the purpose of deflecting air from the wall. The shields are constructed of galvanized iron, No. 24 gauge, and the exposed edges are strongly wired. Between the shield and rad-

iator, cast-iron spacing blocks are placed, making the distance between the back of the radiator and shield about 2 inches. The shields are bronzed to match the radiators.

The valves on the flow ends of direct radiators are extra heavy steam pattern, rough body, finished trimmings, nickel plated all over, provided with ground-joint union connections and elastic discs, and with suitable diaphragm attachment for automatic temperature control.

The first floor and basement radiators are fitted with diaphragm radiator valves on the flow end only; the return ends of radiators are fitted with plain, rough-body, nickel-plated union elbows. The return branch from each first-floor radiator is fitted in the basement with a gate valve and with a T and a 3-4-inch globe valve with 1-inch hose connection.

The return end of each basement radiator is provided with a regular steam-pattern radiator valve, with union.

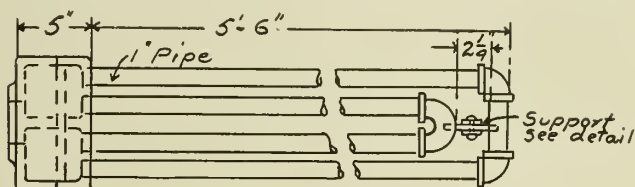
Positive nickel-plated air vents are used on direct radiators.

The building is provided with a temperature-control sys-

perature, which is 45 degrees Fahr. in the tempered-air chamber and 90 degrees Fahr. in the hot air chamber, and are guaranteed to maintain a constant within 2 degrees of the desired temperature.

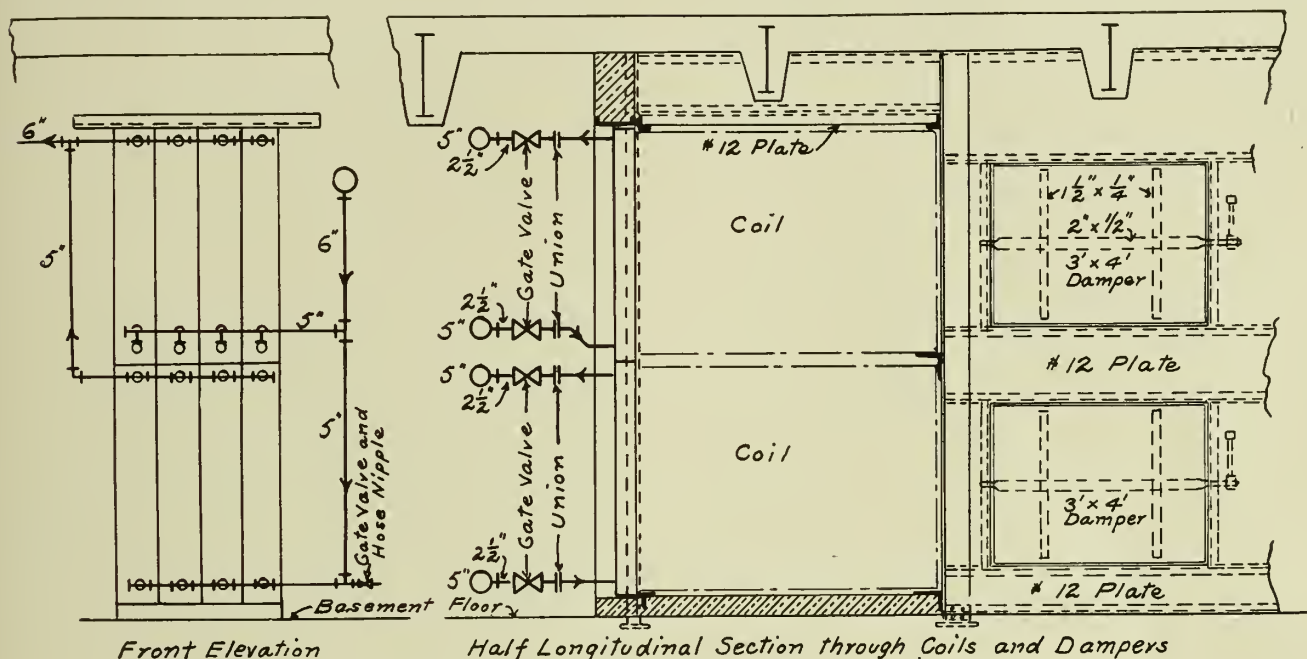
### Ventilation.

The ventilating apparatus consists of a  $\frac{3}{4}$  housing, steel plate, double inlet, top horizontal discharge, centrif-



Top View of Coll Support.

ugal fan, with wheel 78 inches in diameter, width of housing 41 inches, and inlets 40 inches in diameter on both sides of the fan. The fan wheel shaft is fitted with a pulley for belt drive from an electric motor, giving a



**Details of Tempering Coils, Dampers, Etc. Heating Coils Similarly Set and Connected.**

tem for automatically regulating the temperature of all rooms in the building supplied with heat.

Thermostats are located in such part of each room and in the indirect air chambers as will best serve to give the average temperature of each apartment. In the room the thermostats are located 5 feet 6 inches above the floor level.

These thermostats are capable of adjustment within at least 5 degrees each way of the temperature called for in the room or chamber in which they are placed, which is 70 degrees in all office rooms. They are located as follows: Money-order and registry division and corridor, 2; Postoffice work room, 4; all other rooms, 1.

Two thermostats are placed in the tempered-air chamber and two in the hot-air chamber, in connection with the indirect heating coils in the basement, for automatically controlling the mixing dampers. The thermostats are fully exposed to the air passing through the dampers and coils. These thermostats are capable of adjustment within at least 5 degrees each way of the desired tem-

maximum fan wheel speed of 200 revolutions per minute.

The fan housing rests on a concrete foundation with a 2 inch thickness of compressed cork between the fan and the foundation.

The heating and tempering coils consist of wrought iron pipe tapped into cast-iron headers. The coils are enclosed in brick chambers and wrought-iron plates, and are supported on brick walls and concrete.

Mixing dampers are placed between the tempering and heating coils. They are constructed of No. 12 sheet iron stiffened with bar iron, fitted with brass trunnions and with operating devices so arranged as to be handled under thermostatic control.

The basement windows used as cold air inlets are provided with wire screens, with 1 inch mesh, made of No. 9 B. & S. gage wire with 1 inch channel frames, the ends of wire being let through frames and wired. The screens are constructed of galvanized wire and channels, the completed screens being galvanized.

The hot air distributing ducts in the basement are con-

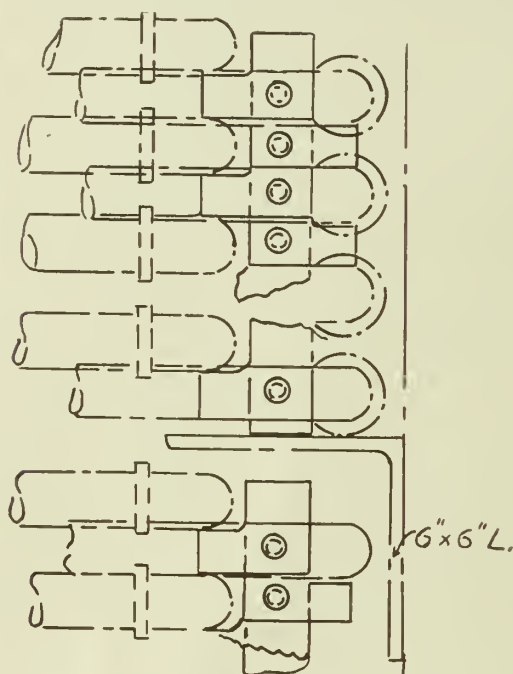


structed of galvanized iron of sizes shown on plan, Fig. 1. The runs of ducts are supported every 10 feet by hangers. The hangers for rectangular ducts consist of  $\frac{1}{2}$  inch pipe supported by  $\frac{1}{4}$  inch pipe, secured with malleable fittings. The hangers pass through the first floor construction and are provided with a plate.

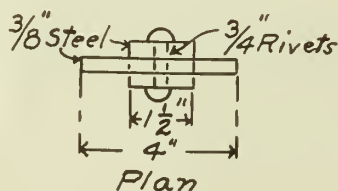
#### Air Purifying Apparatus.

An air purifying apparatus is installed between the heating and tempering coils, which is of the spray type, consisting of a spray chamber, eliminator, tank, circulating pump, motor, etc.

This apparatus consists of two separate units, each of



Elevation.



Details of Coil Supports.

sufficient capacity to purify 13,000 cubic feet of air per minute, or 26,000 cubic feet of air per minute for the two units.

All of the piping in connection with the purifier is galvanized wrought iron, with beaded galvanized malleable iron fittings.

#### Covering.

All of the piping in the basement, except in trenches, in connection with the heating apparatus, is covered with non-conducting fireproof, sectional, removable pipe covering,  $\frac{7}{8}$  inch thick, with 8 ounce canvas jacket.

Fittings and valves in the piping are covered with sectional, molded covering, provided with 8 ounce canvas jacket.

The ducts in the basement conveying hot air from the fan to flues are covered with sectional block covering one inch thick. The block covering is applied directly

to the ducts and is held in place by metal lath or copper wire.

The building was designed by James Knox Taylor, supervising architect for the United States Government, Washington, D. C.

#### THE SPECTATOR.

The Spectator recently—while in his other identity as a business man and not as a journalistic scrivener—experienced some of those delightfully frank appraisals of his talents that seldom come to any, other than those who work under the cover of an assumed title. With a friend, who has developed as fine a heating and plumbing establishment as there is in the western part of the Middle West, he was lingering over cigars and coffee and indulging, as a friend does, a little in big talk and much in small talk, when curiosity and his ego got the better of him and he asked his friend if he subscribed for "Domestic Engineering." The answer promptly was "Yes," and before the Spectator could adjust his features to an expression that would lend an air of the merely casual to the next question (such, oh shame, is man's duplicity even to his friends), that answer was expanded in the following manner:

"Yes, I've been a subscriber for some time. I take it for the advertisements."

Like the Walrus, the Spectator then decided that "the time has come to talk of many things," but the insides of his own journal was not included in the list. Of course, the perfectly natural sequel to the incident was a close and critical examination of all the advertisements in last week's issue as soon as he got back to his desk.

Now advertising, viewed upon its technical side or its artistic or psychological sides or whatever other facets it may present, is a deep and difficult science which the Spectator, who is a Philistine in such matters, leaves wholly to those fitted to treat it as a science. As to another side, however—perhaps it may be called the human side—he feels otherwise, for to him there isn't much in an advertisement except its human side. To persuade him to part from his hard-earned ducats, an advertisement must resemble a simple, straight-forward oral recommendation, and the journal or magazine, which presents it, must have established itself on terms of intimacy as does an old and trusted friend. And what demands we all of us make upon a publication before we admit it to a place of friendly intimacy! It must never have failed us; its recommendations or advertisements we almost insist shall be guaranteed by the managing editor; we criticise its style and write protests against its editorial opinions, but after years of association, if we have come to discern a spirit of earnest, conscientious endeavor to stick always to the truth, we renew our subscriptions as heartily as we greet an old friend and no doubt some of us, like "Domestic Engineering's" subscriber from the West, "take it for its advertisements."

#### He Was Still Dripping Wet.

Last night, after I'd caught the soap for the second time in the bath tub, there came an insistent ring on the telephone, I was alone in the house, and as I was expecting an important telegram I dashed for the telephone in a cloud of silver spray. When I picked up the receiver all I got was: "Sorry; I rung you by mistake." Says I, "You didn't wring me at all; I'm still dripping."—Chicago Tribune.

# Plumbing Experiences in the Frigid Southwest

The Recent Cold Wave Which Destroyed Millions of Dollars Worth of California Oranges, Put New Mexico Plumbing to a Severe Test

By A. W. STRUMQUIST

**T**HE most popular man in the world is the plumber who practices leadcraft in the sunny (?) southwest at a time when the weather man is "acting up" and the mercury shooting down.

According to the various opinions of those who acclaim his greatness, he is "a god," "an independent codger," "a public benefactor," "a devil," and many other interesting things. But he is great, and he is popular.

Sixteen degrees below zero in New Mexico, where people roast in porch bed-rooms the year round!

Never before in the annals of white man, nor in the traditions of the red man, have the arctic elements cavorted so wildly over the mesas and valleys of the "sunshine state."

Naturally the plumber is the most important personage in the community; and the non-provision for frigid temperature in house-building is a contributory factor to his popularity, and to the discomfort of residents.

The blizzard that swept the Pacific coast, destroying among other things, the twenty-five million dollar orange crop of California caused a stampede for plumbers in Albuquerque, New Mexico. All over the city, burst pipes occasioned injury to property. Ceilings fell, dwellings

mild climate. One hospital for tubercular patients was almost a wreck on account of broken pipes. In one sanatorium where a plumber was encored for the fourth performance in one day, he was called from the kitchen of a boarding house where the landlady and helpers were wading about in rubber boots cooking for boarders.



One of the Sanitoriums That Sustained Considerable Damage to Plumbing and Heating Apparatus During the Unusually Cold Weather.

At another hospital where a woman's life depended on an operation, the same plumber and helpers worked like Trojans to get the radiators to heat the operating room before the patient died. This was accomplished, the operation performed, and a life saved. Next morning two more operations had to await the second thawing of radiator pipes.

Rarely a performance in the thawing line but was encored twice or thrice before the same audience.

The grievance committee at the office end of the business heard as many different stories and calls as there were different characters at the other ends of the telephone line.

One threatened damage suit unless a plumber appeared at once to prevent a boiler bursting. Another humbly



Plumbers Starting Out to do Relief Work in the "Cold Grey Dawn" After the Blizzard.

were flooded, heating plants in hospitals and lodging houses were out of commission, sick people in great numbers were obliged to do without water or hire it carried when they could. Bath tubs humped their hind feet several inches off the floor, and were backed up in their eloquent attitudes of "grouchiness" by the lavatories that spurned the walls and twisted their supplies into postures expressive of "huffiness" at the antics of the weather man.

The telephone end of a plumbing business is a splendid vantage point to get a "bird's-eye view" of a frantic people during a pipe-bursting epidemic. Distress calls, coming in rapid fire order, revealed a serious condition, proving that in such unforeseen contingencies there were not enough plumbers in the city to relieve a situation that would be comic if it were not tragic.

The greatest discomfort was felt by the health-seekers, who are in the city in thousands for the benefit of the



Frozen Fountain in the Court of the Alvarado Hotel, Albuquerque, New Mexico.

prayed for attention "today or tomorrow, or whenever the worst cases are fixed first." Another icily informed the listener that the plumber is a liar because pipes that were alleged to be frost-proof had frozen.

An aged lady was struck and floored by a stream from kitchen pipes. Another lady was narrowly missed by a shot of hissing steam from a broken radiator. A stenog-



rapher returned from work in the gloaming to find a sick husband helplessly watching the water from burst pipes, pile up under the bed.

In a small hotel a part of the ceiling collapsed on the breakfast table where boarders were dining.

Even the hotel de luxe succumbed to the prevailing fashion, and, lacking heating comforts, the delicate of health moved post haste to sanatoria, only to find similar conditions.

A pretentious flat, that was tenantless, was noted by passers-by to have a cataract of water tumbling down the stairs from beneath door sills. A foreigner telephoned:



One of the few Heating Plants to Withstand the Strain of the January Blizzard was the Apparatus that Heated the two Buildings Here Shown.

"I want a plumber man by my house. My pipes are freeze. I warm him up by hot water, but he don't run out de right place. He run out all de times by de sides."

Several suburban homes were for more than a week without water; but, be it said to the credit of the craftsmen, not even big cash inducements could tempt the relief agents away from jobs where the sick or children required aid.

Master plumbers and journeymen alike responded to midnight calls, and little sleep was secured by any of the craft for a fortnight. The enterprising electric power company offered first aid to the injured in the way of a thawing device, that for the minimum fee of twelve dollars for thawing one hundred feet or less, and the twelve dollars for each subsequent hundred feet, would thaw out pipes. Needless to say, this agency was less popular than human agents at seventy-five cents per hour.

In the wake of the storm, and frigidity, were left thousands of dilapidated plumbing and heating systems, much suffering, and many excellent lessons.

One lesson the public has well learned, is appreciation of a plumber's value to society.

Another lesson is in housebuilding. And though the elements may never again hold an ice carnival in this region, the architects and house owners have already vowed they will henceforth build blizzard-proof houses.

### TRADES INTERESTED IN MOTOR TRUCKS.

To what extent interest is taken in motor trucks and their use by different lines of business is a matter of no little interest and value. Probably the surest guide to this is the attendance at the big National commercial vehicle shows held annually in New York and Chicago.

A painstaking tabulation of all responses received to invitations to attend last winter's shows has been made by the Statistical department of the National Association of Automobile Manufacturers. Invitations were sent, in

round numbers, to 40,000 companies located in the territory embraced by the New England, Middle Atlantic and North Central States as far south as Tennessee and as far west as Oklahoma. Most of these companies have a financial rating of \$50,000 or more, indicating that they are easily capable of buying trucks or delivery wagons.

About 7,500 companies responded to the invitations, and these are included in the tabulation, making the most comprehensive investigation ever undertaken along this line.

As originally compiled, the list showed 225 distinct lines of business, including manufacturers, jobbers, wholesalers, retailers, commission merchants and others in each line. These various trades have been rearranged into broad groups of allied lines for convenient reference. In order of the number of replies received, the trades most prominently represented are as follows:

Building and contracting trades.....	482
Metal and hardware trades.....	392
Grocery trades .....	306
Machinery and tool trades.....	276
Light, heat and power companies.....	255
Dry goods and clothing trades.....	253
Furniture, beds and bedding, carpets, rugs and house furnishing .....	223
Brewing, and liquor trade.....	219
Expressing, teaming, etc.....	214
Coal and wood .....	205
Printing, publishing and allied trades.....	176
City governments .....	155
Lumber trades .....	151
Textiles and dyeing .....	143
Paints, oil and decorating trades.....	142
Heating, plumbing and steam fitting trades.....	126
Department stores .....	123
Storage and moving.....	117
Produce and commission .....	117
Steam railroads and equipment.....	112
Paper and paper box trades.....	111
Boots, shoes, hats, gloves and men's furnishing.....	100
Meat and packing trades .....	106

That the trades which have been most dependent upon horses heretofore are deeply interested in the motor truck, is shown by the fact that 407 teaming, storage and moving, expressing, delivery, wagon and carriage, hay, grain and feed and harness companies are listed. However, the building and contracting trades lead, with the metal, metal manufacturing and hardware trades well up toward the top of the list.

It should be borne in mind, however, that the number of companies represented in any particular trade is not necessarily an indication of the exact relative interest of that trade in commercial motor vehicles nor of its probable absorbing ability, during the coming year. These are dependent upon the proportion borne by the number represented in the list to the total number of companies in each trade in the territory tributary to the shows and the average number of trucks operated by the truck owning companies in that trade. For example, the probable demand for power vehicles by the 123 department stores would greatly exceed the demand by the 176 printing and publishing companies or the 117 storage and moving companies.

Muskogee, Oklahoma.—The O'Connor Co. of Muskogee, Okla., have been awarded the contract for the installation of the plumbing in the Hippe Polk Bldg., Des Moines, Ia. This is a twelve story office building.

# Compulsory Ventilation Law is Discussed

The Report of the Committee on Compulsory Legislation of A. S. H. V. E., Prof. J. D. Hoffman, Chairman, is Given Herewith

**Y**OUR committee has had under advisement this year several drafts of a model law, but so far has not succeeded in putting it in such shape as to be wholly acceptable to the members of the committee. Each draft excepting the last one, which is here presented, comprehended a two-part bill, i. e., the first part including schools auditoriums, hospitals, theaters, moving picture shows and other meeting places for mental, physical and social improvement and recreation; and the second including factories, mercantile establishments, mills and workshops. Of the two parts above mentioned the first presents an easier solution and the chairman here submits only that part with this report for your consideration, in the hope that some discussion may be given the subject to guide future committees in this work.

## Chief Difficulty.

The chief difficulty in preparing such a work is the unsolved problem of "what constitutes good ventilation?" The old standards have been questioned and entirely discarded by many, but as yet no new ones are formulated to take their places. In this unsettled condition there should be a thorough discussion before the committee report can be said to represent the views of the society.

## Appearance of Radical Articles.

Some technical articles appearing within the last year or two have made statements that are extremely radical, to say the least, when analyzed with calmness and good judgment. Many of these extremely partisan statements will later be found to be ill-advised, but the agitation proves conclusively that the subject is being studied more than ever before.

Prominent men of science are conscientiously giving time and energy to find a solution that may be generally adopted. All honor to such men. Great care should be exercised, however, not to become so sensational and vitriolic in public denunciation of existing conditions as to forfeit the applause of thinking men, as was true of an article entitled "The Vicious Quantitative Standard of Ventilation," which came out in one of our prominent engineering journals bearing a photograph of the author and a half-page cartoon, the latter more fitted to adorn the front page of the Police Gazette than to elaborate what was supposed to be a serious article for the betterment of mankind, by one who claims to be an engineer.

Again, it is unwise to make sweeping conclusions as to the permanent effects upon humankind from a few short tests of a few hours' duration, as for example the following, which is quoted verbatim from one of our American journals:

"These experiments prove conclusively that through the metabolic assimilation of man no gaseous excretions of a toxic character and capable of causing health-interfering effects observed in crowded rooms, are thrown into the atmosphere. On the other hand, all the experiments indubitably indicate that the cause of such interference with health is to be traced to the thermal conditions of the environment and to the heat accumulation conditioned by this environment."

Such a statement is justifiable only after years (instead of days) of careful investigation. No one will doubt that

the experiments leading up to this conclusion showed improved temporary comfort and stimulating effect by certain degrees of air movement, temperature and humidity, but how about the permanent effect?

Suppose a number of persons were being experimented upon and some of these were unfortunate enough to be afflicted with diseased lungs or skin. Would the health of the other occupants be permanently affected if obliged to breathe this air indefinitely? Suppose we assume that all the persons were in good health when the experiment began could they maintain this good health permanently in an atmosphere where the by-products of combustion are continually increasing and the health-giving qualities of the air are continually decreasing? Granting that CO<sub>2</sub> is not poisonous, how much of an increase of CO<sub>2</sub> may be permitted in the air that is to be used continuously?

Granting that we can exist without temporary discomfort in an atmosphere having much less than 21 per cent oxygen, what will be the permanent effect?

These are some of the questions that need to be seriously considered before we can consistently disregard, as some have advised, that time-honored axiom, "pure outdoor air and plenty of it." This society stands for scientific progress, and every member will welcome a thorough discussion of this most important subject.

## Progress in Work.

In addition to the efforts of your committee to formulate a typical law, the work in the field is not at a standstill. In at least two states there are hopes of obtaining compulsory ventilation laws. In Nebraska your representatives are working with a committee from the Nebraska State Medical Society and expect to submit a ventilation bill to the Legislature which is now in session. In Tennessee our member, Mr. Harwell Allen, reports that he hopes to be able to submit a bill to the Legislature of that state. We trust that both of these endeavors may be fruitful.

## Work in Chicago.

In Chicago Dr. E. Vernon Hill has been appointed Chief Ventilation Inspector, with assurance of such assistance as will be necessary to see that the ventilation ordinances are carried into effect. This is certainly a step in the right direction. In addition, the Chicago Ventilation Commission has been reorganized with a few new members, including a member of the American Institute of Architects and a member of the Chicago Architects' Business Association. This commission will hold meetings throughout the coming year every two weeks. We hope this commission will continue the investigations with the experimental room in the Chicago Normal School, and be able to report some conclusive results at the end of the year.

## Co-Operation of Members Requested.

In concluding this report the committee, through the chairman, would urgently request all members of the society who have any knowledge of the working-out of any of these laws to report their views as critical suggestions to the chairman of the committee for future guidance.



### Proposed Ventilation Law.

General.—Whereas, one of the fundamental principles of this government is to guard the health of its citizens, and whereas, it is considered absolutely necessary to health that buildings used for school purposes, auditoriums, hospitals or sanitariums, theaters, moving picture shows and other meeting places for mental, physical and social improvement and recreation, hereafter to be erected by an municipal board, public or private corporation or private citizens, shall be properly heated and ventilated; therefore:

Section 1. Be it enacted by the General Assembly of the State of——— that the State Board of Building Inspectors (or other organization appointed or elected to fulfill such duties) shall not approve any plans for the erection of any building as above stated, whether public or private, containing a room or rooms to be used as meeting places, study rooms, rest rooms, sick rooms or wards, laboratories, work shops, corridors, cloak rooms, toilet rooms, etc., unless the plans are in accordance with the following provisions covering such work:

#### Heating.

Section 2. Every office, assembly hall, recitation room, rest room, sick room or ward, corridor, cloak room, work room and toilet room, in every building used for school, health or other meeting purposes, where one or more persons are engaged in study, research, entertainment or rest, shall have provision for securing and maintaining uniform temperatures in all parts of said rooms, and such temperatures shall be maintained at all times when said rooms or apartments are occupied.

Section 3. Temperatures shall be considered satisfactory between 65 and 70 deg. F. within the offices, assembly halls, recitation rooms, rest rooms and sick rooms; 60 to 65 deg. for gymnasiums, 60 to 70 deg. for all corridors, cloak rooms, work rooms and toilet rooms. No room shall be considered satisfactorily heated that has a variation of temperature in different parts of the room of more than 5 deg. F.

#### Ventilation.

Section 4. Every office, assembly hall, recitation room, rest room, sick room or ward, corridor, cloak room, work room and toilet room, in every building used for school, health or other meeting purposes, where one or more persons are engaged in study, research, entertainment or rest, shall have provision for securing and maintaining proper and sufficient ventilation, and such ventilation shall be maintained during such hours as rooms or apartments are occupied.

Section 5. In all such buildings, located where the ventilating air may be made impure by dust from the streets or from other impurities held in mechanical suspension, approved filters or air washers shall be installed, and said filters or air washers shall be kept in full operation during such hours as rooms or apartments are occupied.

Section 6. In all buildings ventilated by mechanical means, there shall be installed humidity appliances capable of controlling the relative humidity of the ventilating air within a maximum fluctuation of 10 per cent; the range of humidity to be between 50 and 70 per cent.

Section 7. Any room or apartment mentioned above shall not be deemed sufficiently ventilated except as follows:

First.—At least 200 cu. ft. of air space, or 15 sq. ft. of floor space shall be provided for each and every person occupied therein.

Second.—Pure air shall be supplied in the amounts as stated in this section.

For sick rooms, contagious diseases, hospitals, 3,000 cu. ft. per hour per person; for sick rooms, not contagious diseases, hospitals, 2,500 cu. ft. per hour per person; for auditoriums, schools, etc., 1,800 cu. ft. per hour per person; for each cubic foot of gas burned, 1,000 cu. ft. per hour per person.

Third.—Any room or apartment having at least 1,500 cu. ft. of air space for each and every person within the room or apartment and having outside windows and doors whose total net area is at least one-eighth of the total floor area, shall not be required to have artificial means of ventilation, excepting where the air is made impure by fires, gas jets, drains, etc., in which case special provision shall be made against these impurities; but all such rooms shall be properly aired before beginning work for the day and during meal hours.

Fourth.—Any room or apartment having less than 1,500 cu. ft. and more than 500 cu. ft. of air space for each and every person within the room or apartment, and having outside windows and doors whose total net area is at least one-eighth of the floor area, shall be provided with artificial means of ventilation which shall be in continuous operation during the period of occupancy when the outside temperature requires the windows to be kept closed, and which shall supply during each hour of occupancy the amount of air as stated under this section.

Fifth.—No part of the fresh air supply required for any room or rooms in any building shall be taken from any cellar or basement or from any other source than a direct withdrawal from the outside air.

Sixth.—The terms used in this section shall be interpreted thus: The air space required for each person is the total interior volume of the room expressed in cubic feet, without any deductions for equipment contained therein, divided by the number of persons employed therein. Outside windows and doors are those connecting directly with the outside air; the window and door area is the total net area of the windows and doors of all openings in outside walls, and the floor area is the total floor area of each room.

Section 8. Air velocities used in heating and ventilating systems for buildings as above stated shall be not more than 400 ft. per minute at the register and 700 ft. per minute in the vertical stacks or ducts. Where mechanical air washers are used the velocity of the air flowing through the air washer shall not exceed 400 ft. per minute.

Section 9. Responsibility of providing for and maintaining said heating and ventilation shall rest with the ——.

Section 10. If a room or apartment as above stated is not provided with proper and sufficient means for heating and ventilating, the commissioner or other person in charge of such responsibility shall issue or cause to be issued to the —— or to his representative an order requiring such heating or ventilating apparatus to be installed within a specified time, also requiring that such apparatus be maintained in operation in accordance with these aforesaid provisions.

Hessleman Brothers, Dyersville, Ia., are a new plumbing firm in business there. When they started they immediately sent a draft for \$2.00 to "Domestic Engineering," and in sending it say—"We are just starting in business here and, of course, a good paper like "Domestic Engineering" is the thing we need for up-to-date information."

Browning & Freize are starting a new plumbing business at Lents, Ore.

Toge & Madson, of Northwood, Iowa, are installing the plumbing and heating in the new Larson Hotel.

# A New Department for Domestic Engineering

Means and Methods by Which the Plumber and Steamfitter Can  
Create an Interest in His Business Through Aid of the Local Press

FOR some time the editor of "Domestic Engineering" has had a plan in mind by which a plumber and steamfitter can not only create an interest in his business by means of constructive work, but can offset the popular idea that plumbing and steamfitting work is of necessity costly.

We who are in the business know that no trade furnishes as much in value for work done or material supplied as the plumber or steamfitter; but the public does not always know that.

We know from experience that nothing adds more to the health, comfort and enjoyment of life than the service that only the plumbing and steamfitting trades can supply. The public does not always realize this.

We further know that the majority of plumbers and steamfitters in the business are in favor of thorough protection of the trade, wishing to install only the best of material in the most workmanlike manner, and that the patron who is willing to pay for this service is bound to get much better value in proportion than the close buyer, who looks only to how cheap he can get the job done. Very seldom does the patron realize this.

But the average plumber and steamfitter is busy on the production end of his business; his time is taken up with work other than the creation of public sentiment in favor of the great work he is doing. Realizing this, "Domestic Engineering" has prepared a number of short articles to run from time to time. In order to give wide distribution to the matter designed for this purpose, it is only necessary for these items to be clipped and handed in to your local newspaper publisher, who in most cases will be pleased to print them for the good of the trade.

You are advised to clip out these items as they appear from week to week and either mail them to your publisher or take them to him yourself and see that they are published. Whether you are advertising in his paper or not, you can induce him to publish these, with the result that in a few months' time a sentiment will be created in favor of your business that will be worth money to you.

Many of the trade have made excellent use of the article by Elbert Hubbard which was published in our New Year's Issue, and have had it reprinted in their local newspapers. The results are already being noticed.

It has been suggested by Domestic Engineering that a National Publicity Bureau, under the direction of the National Association of Master Plumbers and the National Association of Master Steam and Hot Water Fitters, could accomplish a great deal of good by furnishing to the members data and charts to assist them in their work of selling, and have inserted in the newspapers and magazines of the country articles that would put the plumber and fitter before the public in the proper light.

It is admitted by the men who have given it thought that not enough publicity of the plumber's business has been carried. The possibilities of the business are vast—and modern methods must be used to extend them.

You can do your part in this work so easily, and with so little effort, that you will not notice it, but the results in your year's business will be noticeable. As you hand the editor of your local newspaper a cigar today, turn over to him the clipping of the article in the next column.

## COMFORT AND IMPROVED STANDARDS OF LIVING.

How Improved Methods in Providing for Comfort  
Pay the Home Owner and Renter.

One of the places where the home owner and home builder can do the greatest good is in making the home sanitary. The doctrine of all modern medicine now is to prevent rather than cure.

A traveler who has visited considerably in the South says: "As a man accustomed to the ordinary accommodations of the North, my fingers always itch to make changes in favor of comfort in southern homes.

"You rise in the morning and the room is chilly. There is no way to warm it up except by the grate fire. Never before do you realize how great a part modern heating plays in personal comfort. You light your fire—or have it lighted for you—and then dress between shivers, while in front of the grate it is warm and in the rest of the room it is still damp and chilly.

"How you long for evidences of the work of a good heating and plumbing man! How you miss the water sizzling hot from the pipes and the modern conveniences of one of the bathroom sets pictured so alluringly in the magazines!

"And when your 'cold' settles on you, you will lay it to the change of climate as a matter of course, but you know that while it may be the doctor that you need now, the plumber and steamfitter could have kept you in condition much better.

"And take the trip to the old home farm—even in the North you lack the comforts so necessary to good living. Despite your pleasant remembrances of boyhood days, when you used to bathe in the mill-pond during the summer and in the family washtub Saturday night during winter, something seems to have changed your ideas as you long to get back to the city. And you know that a good part of the longing is a desire to get where the sanitary comforts which the plumber installs are at hand.

"The fresh air and plain food of the country as health-giving factors are often offset by the lack of sanitary plumbing. And the boy who leaves the home farm to take up work in the city finds that he stands the change and even makes a gain thereby because of the sanitary conveniences that are found everywhere in modern homes, offices and factories."

The above expression is one that is of more than passing value to both residents of the city and country. The time is rapidly coming when the country will be made still more healthful—when the farmer will no longer pride himself on having a "big house" unless it is equipped with the most modern sanitary plumbing equipment and with a heating installation that will warm the entire house if desired, instead of the area about the stove.



# The Business of the Modern Sanitarian

By John Rowe

IT has been the observation of the writer that, irrespective of territory, the masters engaged in the sanitarian business are often prone to go after the business in either a dilatory or a hit-or-miss fashion. The greater percentage seem well satisfied to take what comes to them, or else cast about for work in any old way without any plan or system whatsoever. If one takes the trouble to look into any well-regulated business one will find that regular campaigns are laid out for each season of the twelve months and that these campaigns are pushed for all there is in it.

Such business houses know, in advance, just about how much business should come in, under ordinary circumstances, and they make it a point to land the contracts. They know, also, where the business is to be found. These points do not, as a rule, hold good in the sanitarian business and it is the fault of the man who runs the business—not because the business is not there. The sources of business can be easily shown in a diagram and they are:

## Apparent Sources:

1. Advertised contracts.
2. Architects' invitations.
3. Sub-contracting.
4. Jobbing calls.
5. Occasional calls of prospective customers.
6. Invitations to cut prices.
7. Building notes from trade papers.

## Invisible Sources:

1. Rural districts.
2. Small towns having no waterworks.
3. Retired farmers who have "come to town."
4. "Well to do" people who have no "modern improvements."
5. Factories.
6. School buildings.
7. Waterworks systems.—Air pressure.

There are listed, under two heads, fourteen definite sources where business for our craft may be found and the writer does not claim that the list is complete.

The first seven sources, viz., the ones labeled "Apparent," are the sources upon which the main body of sanitarians rely for their living. Taken on a fair basis it represents perhaps half of the business that could be done were the second seven sources properly and systematically cultivated. There are good prospects lying around not a stone's throw from the shop of every sanitarian in this country.

It is easier to wait for the business to come in, instead of going out after the trade. The "apparent" business will do so (after a fashion), but the "invisible" business hardly ever does and that is one of the main distinctions between the two lines.

For the past ten years the farmers, as a rule, have been making money. They are building new homes and far better buildings than of yore. Some of these farmers are wise enough to put in modern improvements, while others have to be urged. There is not a better customer anywhere than the farmer when once you land him and he generally is able to pay cash, a most desirable point in the game.

Yet, for some reason, the plumbers as a class neglect this source of rural business. There are hundreds of small towns having a population of from 50 to 1,000 that have no system of waterworks, nor is there much prospect that they ever will. These towns are a big field

for the dealers who can install pneumatic water systems.

In a great many of the smaller towns there are quite a number of farmers who have retired from active work, bought or built a good home in the town and settled down to spend the rest of their life in comparative ease and comfort. These farmers are not an easy class of people to make one's customers, but that comes in many cases, from their not being educated to the standard of city conveniences. They need to be "shown." Once they are convinced that it is cheaper to run a steam boiler than it is to heat the house with a furnace or stove they can be handled. One good customer landed means several more in the course of the next year.

Take the United States far and near and not one-half of the buildings that could be heated are warmed by steam or hot water. To better appreciate this one needs but to make a list of the firms and people in one's town. By noting the improvements needed in each you will soon see the chances you have of increasing business.

As regards factories there is hardly a bigger field today requiring more sanitary improvements. This can be shown by a tour of inspection in your own district. You will find, generally, that almost any old line of fixtures has been considered good enough for the purpose.

In some cases the owners have awakened and installed the best and most up-to-date fixtures. There are, however, thousands left who must be persuaded either by salesmanship or the law to make much needed changes. In many cases school buildings are in very bad condition as to both plumbing and heating, yet year after year nothing is done to better their condition.

If the district does not wake up let the sanitarian get busy and wake it up. He will have plenty of time if he plans right and makes his moves with tact.

In short, there is any amount of business lying around ready to be taken up by the man who has the gumption to figure out where the business lies. If he depends upon the ways of his father and grandfather he will come out at the little end of the horn. If he has the foresight to create other ways he will get ahead in the game.

---

## MORE EDUCATIVE MATTER SHOULD BE PRINTED.

---

I received the reprint of the Elbert Hubbard article, and had same reprinted in my local newspaper. Our newspapers do not print enough matter of this description. There is nothing in the home that needs more attention than sanitation. The trouble is that we plumbers are too busy getting jobs to help in getting sanitary laws enforced; however, I believe it would be a good thing if we would lay off for a few months each year to accomplish that purpose.

It is a common matter in this town to see drain pipes without vents and without traps. Tin pipes, hose, etc., are used for drains in a good many buildings. It is time that this kind of tin-smith work was stopped and it is also time for our trade papers and our newspapers to give us a little more in the way of articles on sanitation.

J. P. King, Port Washington, Wis.

---

No good, sensible working bee listens to the advice of a bedbug on the subject of business.—Elbert Hubbard.

# Little Sidelights on Men in the Trade

Peck is Always on Deck, by Heck

"O F all glad buncombe of tongue or pen, the gladdest is this—it might have been." (Apologies to Whittier.) Some of us years ago, when we were spry, saucy little shavers in cute knickerbockers, used to hope night and day that we would one day be successful, top-notch circus clowns or bare-back riders. But, alas, our tender, youthful dreams never came true. Fate was so very cruel to us, so relentless.

The aforesaid idea, thought, and impression strike one gently in contemplating Oliver Dewey Peck, president of the Federal-Huber Company, of Chicago, a house which does a large business in plumbing supplies. Mr. Peck as a boy wanted to be a colonel and that was his one consuming ambition, and in view of that early dream of his we venture to set down a few more thoughts about Mr. Peck:

Thought No. 1—He looks like a colonel.

Thought No. 2—He walks like one.

Thought No. 3—He might easily have become one.

It would be very easy to fancy Mr. Peck riding a prancing steed at the head of a crack regiment of troops. He has the military poise, all right, all right. And since he has the poise and pose of the warrior, why did not Fate or Destiny or Providence permit him to follow what he was cut out to be? In answer we can only refer again to the lines of the poet—"It might have been." But then we must remember that all men cannot be colonels, simply because they look like colonels. That observation holds good up here in the North—of course down South, it is different, for we are credibly informed that every other man is a colonel down there and looks like one too—Dixie is full of 'em, we are told.

When Mr. Peck was a little boy back there in New Haven, Connecticut, where he was born sixty-eight years ago, he used to play around with a wooden sword and beat time on his mother's bread pans. He was on the whole rather a good boy, and only became Peck's bad boy when he accidentally happened to get his little fingers tangled up in the family jam jars when Papa Peck and Mamma Peck were away somewhere. The usual pranks of the Connecticut boy of that day were found among young Peck's accomplishments.

One bright, sunny day in the year 1864 young Peck saw a regiment of soldiers marching off at double-quick time. They were sturdy, young patriots who had responded to the call of Abraham Lincoln to save the Union from destruction. Oliver, although a lad in knee breeches, suddenly became inspired at the sight of brass buttons, wav-



ing banners, beating drums, and martial music. He did a little rapid thinking, and at once decided to become Peck's bad boy, come what may. And it was then that he promptly ran off to join the Union regiment that was hurrying to the scene of hostilities. He joined, all right, for he was in dead earnest. Here was a fine chance to become a colonel before long.

He was forthwith taken into the ranks as a drummer boy, and it wasn't long before he could beat the drum to beat the band. Young Peck was some drummer boy, by heck! All through the bloody conflict between the North and the South, young Peck behaved gallantly—like a hero and a true American. Had he continued in the service of Uncle Sam after the close of the war he might easily enough have connected up as a real,

live colonel, for Peck had the making of one in him. But he had gotten a good smell of gunpowder and like Sherman he came to the same conclusion that war was hell, and that the arts of peace were safer and more profitable.

And so, about forty-five years ago he came to Chicago as a salesman for the Peck Brothers Manufacturing Company of New Haven, Connecticut. One of the first Chicago master plumbers who took a notion to give Salesman Peck an order was the elder Baggot, father of James E. Baggot. This gave Mr. Peck his opening wedge in getting business from the craft in this city.

Mr. Peck is a man of medium height, and weighs about one hundred and seventy pounds. He is the soul of geniality and good humor. He likes to hear a good joke and he likes to tell one, and when he does tell one, you bet your sweet life it's a peach, a Jim dandy—a corker. Mr. Peck is so full of the joy of life, that he pretty nearly boils over. He's a hail fellow, well met.

About ten years ago he was a star member of the Apollo Musical Club of Chicago. He had a strong, resonant voice and his singing before large audiences was often the occasion for vigorous applause. As a singer he used to make a hurricane hit. Even today he is capable of acquitting himself creditably in the art of song.

It may be interesting to those in the trade to be apprised of the fact that Mr. Peck is a distinct relative of Admiral Dewey. To be a kinsman of the hero of Manila Bay is a distinction many would covet. Mr. Peck is not unlike the famous admiral in his facial features. In the uniform of an admiral, Mr. Peck might readily enough pass off as the conqueror of the Spanish fleet.

About ten years ago the Federal Company was organ-



ized, and five years ago the Huber Company of New York was bought out, and linked with the Federal, and the firm name became the Federal-Huber Company which is today one of the progressive plumbing supply houses of the middle west.

Mr. Peck is well known to many men in the trade in the west. He is one of the old-timers in the business, and as a representative of the "old school," he is still



Oliver Dewey Peck as a Drummer Boy.

full of personal activity, enthusiasm and progressiveness, and a right royal chap to meet socially or to transact business with.

At Grand Army reunions he is usually a conspicuous figure, and he is as noisy as he is conspicuous, for he is always "Johnny on the spot" with the good old drum that saw service in many a long weary march down in Dixie land.

This veteran of the civil war possesses a pleasing and engaging personality. He is gentlemanly and dignified in his bearing wherever you meet him. He is the sort of man who is by virtue of his integrity and good qualities, a credit to his city, his state, and the nation.



H. E. S.

My, my! what a rattle of musketry over that proposed Lincoln Memorial in Washington! Just what the upshot of the whole matter shall be isn't agitating "the peepul," as we had them scattered at great distances from Washington, but to the plumbing and heating contractors—or anyone else for that matter whose fortune hangs upon the slender thread of his popularity with the architectural profession—this difference of opinion demands no small degree of agility if embarrassing situations are to be avoided. Nothing approaching tact can be hoped for in these performances unless the "tactor" (in this case the plumbing or heating contractor) has accoutred himself

with a good working knowledge of the principal styles of architecture. Of course, most all of us have had some forethought in this direction, yet the variety of terms employed by architects is liable to cause confusion unless each of these is perfectly understood. When an architect speaks of the "Greek" style, it is disastrous to pick up the thread of the conversation on the assumption that this signifies a system of decoration which adopts the banana and the orange and the apple as its principal figures. A synonymous term, enjoyed by some architects, when they suspect one understands the "Greek" reference, is the "Classic" style. Here again it will prove disconcerting if the "tactor" fancies that he is familiar with this style, having in mind those buildings at the race track where the annual steeple-chase "Classic" took place.

When one realizes that he is obsessed with either of these erroneous ideas, and consequently liable to commit a blunder at any moment that may decapitate him, it is well to remember that the chief characteristic of the "Greek" or "Classic" is the horizontal line. A high board fence, for instance, is an excellent thing to visualize, thus setting the mind right whenever anyone makes free with these terms.

Another primary style is the "Gothic." A good mental picture of the "Gothic" is the flagstaff, for its lines are always conspicuously perpendicular. However, since this style and the "Byzantine" and others, equally difficult linguistically, do not enter into the controversy over the Lincoln Memorial, we can pass them over lightly and turn our attention to the one remaining, namely, the "Great American" style. So far as this style is concerned, the "tactor" must disregard our preliminary suggestion as to accoutrements. Any preconceived notion is likely to cause sure and instantaneous death. Yet on the other hand he need never founder if he is ingenious. Whenever he meets an architect who is staunchly an advocate of the "Great American" style (the number is astonishing), he can get his cue quickly by merely glancing about at the framed specimens of that architect's own work.

In this age of advanced thought and somewhat more diffused enlightenment it is not strange that men like architects and heating and plumbing engineers are discarding the notion that a salesman is proffering a bribe when he opens his cigar-case or timidly advances an invitation to luncheon. We know of several sunny, open-faced dispositions that have been made sour and useless "principal assets" to their owners by that old orthodox righteousness that declined always, and by way of graciousness tinctured its regrets with an imputation that those owners were no more nor less than tricksters. The subject is full of temptation to lengthy discourse, but since the reform has already been practically accomplished it is hardly necessary to comment further unless we add a word of praise for those who are susceptible to influence, but now consider themselves as free men, even though they have accepted some soup and oysters or a ten-cent cigar.

Boss Plumber—"Joe, my apprentice, has quit."

Neighboring Plumber—"Doesn't he want to learn the trade?"

Boss Plumber—"No, he wants forty cents an hour."

"What a debt we owe to modern sanitary science," said Mr. Landlord, as he put down the newspaper.

"Good heavens!" exclaimed his wife, "haven't you paid that plumber's bill yet?"

# Questions and Answers

## INFORMATION ABOUT RUST IN RANGE BOILER.

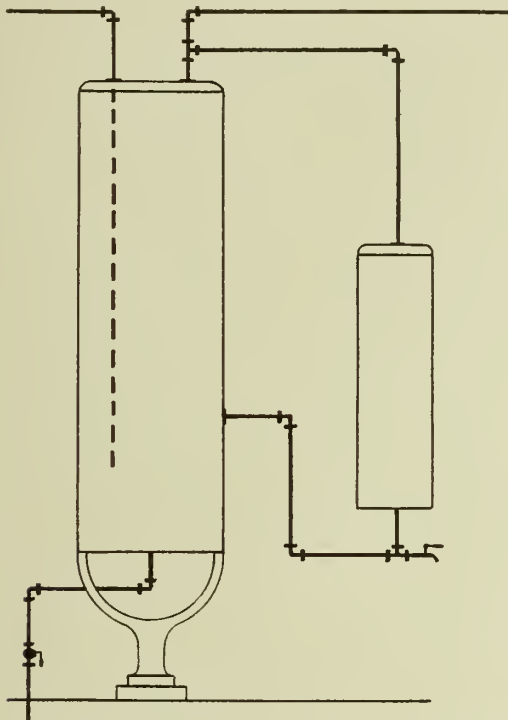
Editor "Domestic Engineering":—We are having trouble with rust from a range boiler heated by a gas water heater. The rust, which is very fine, does not cause trouble on the cold water, but settles in the range boiler and is drawn at hot water faucets.

Can you tell us how to overcome this trouble?

Denver, Colo.

J. Johnson.

We presume that the boiler and heater are connected up in the ordinary manner, with the cold water to heater taken out of the bottom of the boiler. If this is the case, we think the trouble can be overcome by taking



Sketch Showing How to Prevent Rust in Range Boiler.

the cold water connection out of the side of the boiler, as seen in our illustration. In this way, the sediment in the bottom of the boiler will not continually be stirred up by the passage of cold water out of the bottom opening of the boiler. This same trouble has been experienced so often in various parts of the country, that gas companies have in many cases advised the use of such connections as shown.

## WHAT IS WRONG WITH THESE CONNECTIONS?

Editor "Domestic Engineering":—Please let us know what is wrong with the connections that we show in enclosed drawing. When only the range is working, or when only the laundry stove, there is no trouble, but when

both are working at the same time, there is a rumbling that is very disagreeable to the tenant.

Rockford, Ill.

"J. and G"

In Fig. 1 we give the connections which are giving "J. & G." trouble. These connections are often made, but

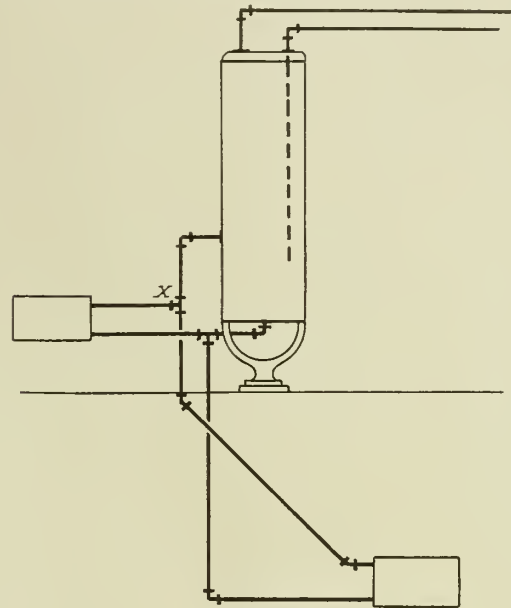


Fig. 1.

are very liable to result in just the trouble that has arisen in this case. Without doubt the difficulty results from the connection at the point X. When both range and laundry heater are running, and especially with the latter running hard, owing to the considerable rise on the laundry stove flow pipe, the hot water from the latter

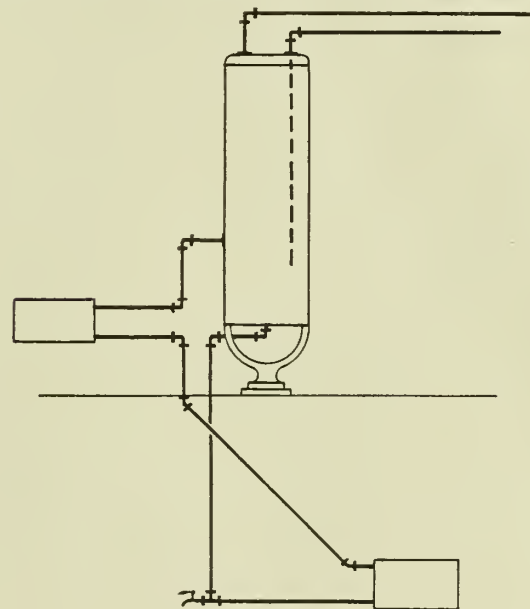


Fig. 2.

will gain considerable velocity, which will often result in preventing the hot water from the range above from making an easy passage past the point X, the hot water from the range not having as great velocity. The retarding of hot water from the range will tend to cause it to become overheated, resulting in the formation of



steam, with the consequent rumbling which is mentioned.

In Fig. 2 we give connections which will be found excellent for such a job as this and it seems to us that very likely the changes to get these connections will not be very great.

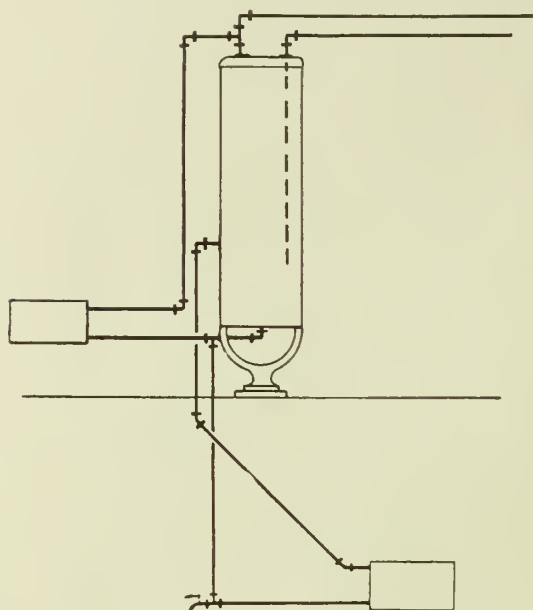


Fig. 3.

Fig. 3 gives another method, which is also good. If desired the lower heater could be taken into the top of the boiler, and the upper one into the side.

#### HOW AN AIR CHAMBER WORKS.

Editor "Domestic Engineering":—Please give me an explanation of the way in which an air chamber works.  
Toronto, Ont. Apprentice.

In answering "Apprentice's" question, we would say that the action of the air chamber depends upon the fact that air is very compressible, while water is practically incompressible. When a pump is in operation, it often happens that at the end of the line, the shock of each stroke will be felt, and pounding or hammering of the pipe will result. This is for the reason that there is no compressibility to water, or in other words, it has no "give." If, however, an air chamber be placed on the line of pipe that is thus affected, the shock of each stroke of the pump will cushion against the air chamber, the air having sufficient compressibility to take up or absorb the shock. In time, however, the air in the air chamber will gradually be taken up by the water until all of the air in the chamber has become exhausted. The air chamber is then said to be waterlogged, in which condition it has lost its entire effectiveness until its air has been renewed.

#### WHICH IS THE BETTER VENTING JOB?

Editor "Domestic Engineering":—I am enclosing two sketches of a venting job, and would like to have your opinion as to which job is the best, and why. This is to settle a dispute. I claim that Fig. 1 is the best, and another man stands for Fig. 2.

"Enquirer."

"Enquirer" has the right of the argument, for the work shown in Fig. 1 is certainly better than that of Fig. 2,

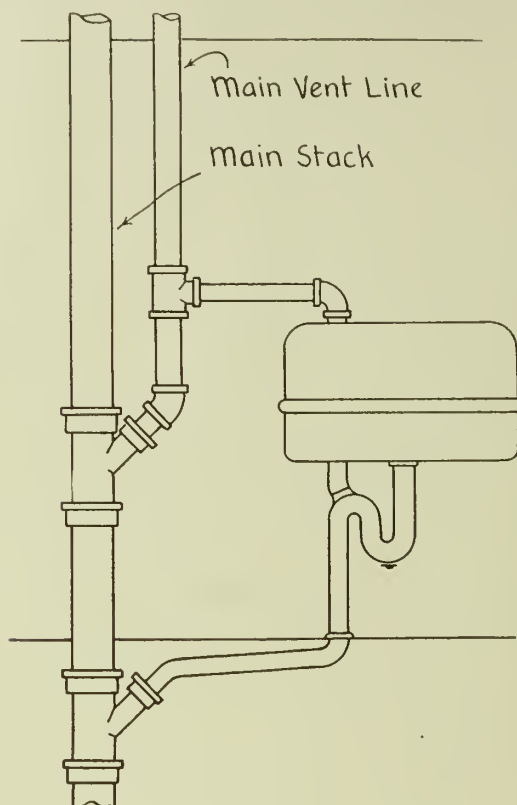


Fig. 1.

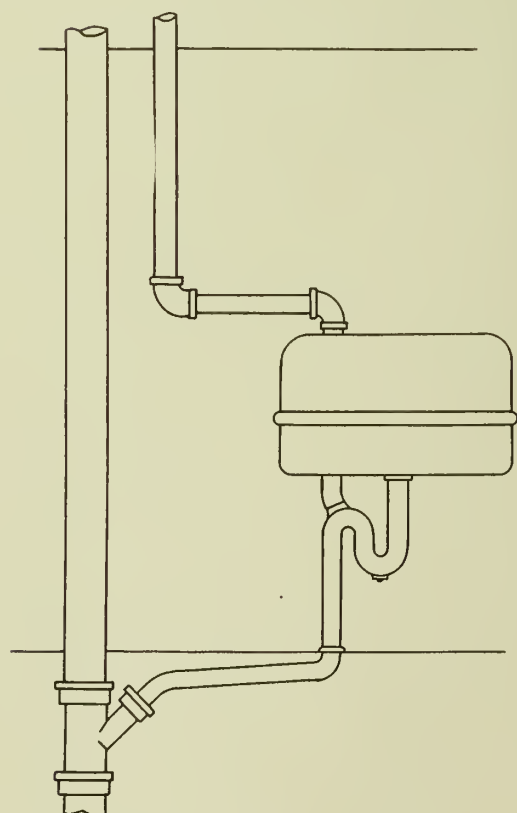


Fig. 2.

and nearly all first-class plumbing ordinances now call for such connections as Fig. 1 shows.

We allude to the connection of the main vent line, back into the main stack.

When the connection is so made, as Fig. 1 shows, there is a free passage for scale, condensation, etc., to pass down through the vertical line of vent pipe, and be carried off through the main waste or soil stack. In the work shown in Fig. 2, scale, etc., will collect at the elbow at the low point, and if not eventually entirely clos-

ing the vent, will create a practical stoppage which is not desirable.

It may be thought that rust and scale and condensation forming in the vent system need not be taken into account, but this is not so, for this thing often is quite a consideration.

## Open Meeting of the Philadelphia Association

THE Philadelphia Master Plumbers' Association on February 6th held an open meeting to which all master plumbers in Philadelphia were invited, regardless of whether or not they were members. The meeting room of the Builders' Exchange was soon crowded to the doors and those present enthusiastically greeted the president of the National Association of Master Plumbers, Frank J. Fee, Secretary Murphy and I. J. Brown, all of New York, and M. Purtill and J. M. Tate, of Pittsburgh, on their arrival.

The attention of the members was called to the importance of taking out gasoline permits. The object of the permit is to give the city authorities a record of the places where gasoline is stored in quantities, so that in case of fire, the insurance patrol or fire department can take the necessary steps to remove the dangerous liquid. Where the master plumber has failed to take out a permit, he would be held criminally responsible for any damage or loss of life resulting through the explosion of the gasoline.

Robert H. Pflug-Felder presented the first annual report of the credit bureau, which is in a flourishing condition and is conducted at a minimum of expense. The president expressed thanks on behalf of the association for the work done and complimented the member and his bookkeeper for the efficient manner in which the bureau is conducted. George F. Uber, chairman of the apprenticeship committee, presented a body of fine looking young men, who had just finished their term of apprenticeship, with diplomas which the Philadelphia association is issuing. Mr. Roberts feelingly spoke of the young men's future, complimenting them on their success and inviting them to remain for the balance of the evening. Prompted by the fine appearance of the young men, Richard H. Watson, "the grand old man" of the Philadelphia association, who has been in business there for almost a lifetime, and a number of whose former apprentices are now officers of the Philadelphia association, requested the secretary to read the little poem, which we take pleasure in printing herewith.

### Give Us Men!

Give us men!  
Men from every rank;  
Fresh and free and frank;  
Men of thought and reading,  
Men of light and leading,  
Men of loyal breeding,  
The nation's welfare speeding;  
Men of Faith and not of Fiction,  
Men of lofty aim in action;  
Give us men—I say again,  
Give us men!

Give us men!  
Strong and stalwart ones;  
Men whom highest hope inspires,  
Men whom purest honor fires,  
Men who trample self beneath them,  
As her noble sons, worthy of their sires.  
Men who never shame their mothers,  
Men who never fail their brothers.  
True, however false are others;  
Give us men—I say again,  
Give us men!

Give us men!

Men who, when the tempest gathers  
Grasp the standard of their fathers,  
In the thickest fight;  
Men who strike for home and altar,  
(Let the coward cringe and falter),  
God defend the right:  
True as Truth, the lorn and lonely,  
Tender, as the brave are only;  
Men who tread where saints have trod,  
Men for country—home—and GOD,  
Give us men! I say again, again—  
Give us men!

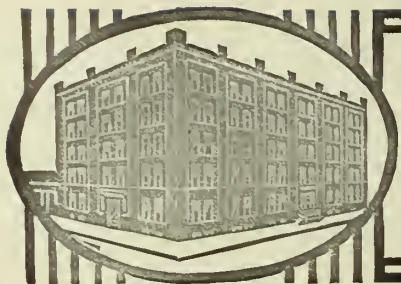
In the talks and discussion that followed, it was pointed out that the average master plumber, very foolishly in many cases, goes to the expense and trouble of drawing plans, taking out bureau of health, water and highway permits, which often take several hours' time and makes no charge for this work and trouble. As this is something that no one but a master plumber can attend to, it is only right that each one should make it a point to charge for the time spent in filing these plans. It was suggested that in every case \$2.50 should be charged to cover the expense of drawings, board of health plans and taking out the necessary permits.

The subject of the city doing street work, running water mains to the curb, as well as the installation of water meters by the city, was brought up. Mr. Murphy, of New York, very fully expressed the opinion of the association in stating that it is not the function of government or municipal authorities to engage in commercial pursuits of any kind in competition with those regularly engaged in that business.

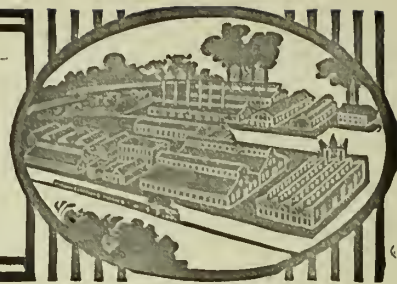
Mr. Roberts introduced National President Frank J. Fee, who was greeted with vigorous applause and after this had subsided made a very forcible talk on association matters. He spoke of trade protection, lack of business methods, wrong competition, general contractors and the poor financial returns to the average member of the craft for the time spent in the business. He also described the protective measures adopted by the New York association. Mr. Fee was followed by Mr. Murphy, who spoke on the absolute necessity of unity in the plumbing business, citing Aesop's fable, in which "A husbandman who had a quarrelsome family, after having tried in vain to reconcile them by words, thought he might more readily prevail by an example, so he called his sons and bade them lay a bundle of sticks before him, then having tied them into a fagot, he told the lads, one after the other, to take it up and break it, and they all tried, but tried in vain. Then untying the fagot, he gave them the sticks to break one by one. This they did with the greatest ease. Then said the father: 'Thus you, my sons, as long as you remain united, are a match for all your enemies; but differ and separate, and you are undone.'"

I. J. Brown, of New York, and J. M. Tate, of Pittsburgh, followed with short speeches, speaking on association matters in general, interspersed with wit and humor. M. Purtill, of Pittsburgh, heartily invited the association to attend the coming state convention in that city.





## News of Interest Among the Wholesalers and Manufacturers



### ITS NAME IS NOW KOHLER CO.

The J. M. Kohler Sons Co., of Sheboygan, Wis., has changed its name and will hereafter be known and do business under the name of Kohler Co.

### A NEW I. X. L. SHOWROOM.

The I. X. L. Pump & Mfg. Co., of Philadelphia, Pa., is fitting up an attractive show room, at its factory, 957 North Ninth Street, in that city, in order to demonstrate and show its water saving devices under water.

### WILL DEAL IN HEATING SPECIALTIES.

The Monitor Heating Co., of Baltimore, Md., has been incorporated with a capital of \$6,000 to deal in heating specialties. The incorporators are Urie J. Bossler, Hollis H. Hopkins and Charles V. Keyser.

### WILL MANUFACTURE PLUMBING SPECIALTIES.

F. F. Rob Flushing Valve Co., 415 East 25th Street, North, Baltimore, Md., has been incorporated with a capital of \$5,000 to manufacture plumbing specialties. The incorporators are Ferdinand F. Rob, Thomas B. Cooper and Harry B. Joyce.

### WILL MANUFACTURE HEATING AND VENTILATING SPECIALTIES.

The Hoosier Warming and Ventilating Co., of Muncie, Ind., has been incorporated with a capital of \$5,000 to manufacture heating and ventilating specialties. The incorporators are E. S. Cleveener, E. V. Fitzpatrick and W. D. Fitzpatrick.

### WILL MANUFACTURE SANITARY FIXTURES AND SUPPLIES.

The B. O. T. Company of New Jersey, Newark, N. J., has been incorporated with a capital of \$100,000 to manufacture plumbing fixtures and supplies. The incorporators are: F. A. Wilkie and E. J. Outram, both of New York City, and W. H. Parry, of Newark, N. J.

### H. W. JOHNS-MANVILLE CO. OPENS OFFICE IN SALT LAKE CITY.

The demand in Salt Lake City, Utah, and vicinity, for pipe coverings, packings, plumbing specialties, lighting fixtures and other products manufactured by the H. W. Johns-Manville Co., has increased to such an extent, that this company has found it expedient to open a branch office in the Dooly Block, in that city. Their many customers in that section of the country will undoubtedly appreciate this as it should materially facilitate the han-

dling of orders, etc., and affords another illustration of this company's inflexible policy to utilize every possible means to serve the interests of their customers.

### SILLCOCKS-MILLER CO. TAKE OVER CELLUVARNO CO.

The business and patents of the Celluvarno Company, at 44 East Kinney Street, Newark, N. J., which has for a number of years been prominent before the trade in the manufacture of sanitary articles and bathroom specialties, has been taken over by The Sillcocks-Miller Company, at South Orange, N. J.

The Celluvarno Company has for some twelve years been under the personal direction of the principal owner, Edgar M. Joralemon. The same high standard which has characterized the line in the past will be maintained by the new owners, who will operate under the same patents and trade name "Celluvarno," continuing the manufacture as a department of their business at South Orange.

### THE ATLANTIC RADIATOR CO.'S. ANNUAL MEETING.

At the annual meeting of the Atlantic Radiator Co., of Huntingdon, Pa., the following directors and officers were elected for the ensuing year: Directors: E. M. C. Africa, Joseph Bancroft, Richard C. Schwoerer, F. A. Downes, Albert C. Stein, George L. Townsend, jr., and Judson A. Goodrich; officers Richard C. Schwoerer, president; Judson A. Goodrich, vice-president; E. M. C. Africa, treasurer; Albert C. Stein, assistant treasurer; J. B. Beirn, secretary. Mr. Goodrich will continue to act as general manager and he states that the company is amply financed and will proceed at once to complete plans for enlargement and improvements that have been in progress for the past few months. Work on new buildings and extensions will be commenced as soon as the weather permits and the force of moulders and mechanics increased as fast as it is practicable.

### THOS. J. BERKSTRESSER CO. RETIRES FROM BUSINESS.

The plumbing supply business of Thos. J. Berkstresser of 1006 Filbert Street, Philadelphia, Pa., has been liquidated by mutual consent. Mr. Berkstresser is prominently known among the Eastern plumbing trade and has been closely identified with it for a great many years. Associated with him in his recent enterprise was A. V. Openshaw who, in September last, severed his active connection with the company to re-engage in business with Robert MacMullen, under the firm name of MacMullen Company, at 1031 Race Street, in the same city. Mr. Berkstresser has planned to open an office in Philadelphia as a manufacturers' agent to handle several lines of plumbing goods.

## CONFERENCE ON SCIENTIFIC MANAGEMENT.

At the Hotel Sherman, Chicago, on March 14 and 15, will be held a notable conference on this important subject, under the direction of the Western Economic Society.

A notable list of speakers will be present. Among papers to be read will be able ones on the following subjects:

The Spirit of Scientific Management.  
Scientific Management from the Manufacturer's Point of View.

Scientific Management versus System.  
Scientific Time-Study and a Proper Task.  
Wage Systems and Their Consequences.  
The Planning Room and Functional Foremanship.  
The Importance of Standardization.  
Organization and Personnel.  
The Selection of Employees.  
Scientific Management in Commercial Enterprises.  
The Social Significance of Scientific Management.  
Scientific Management and the Laborer.  
Some Object-Lessons in Scientific Management.  
The Taylor System.

Many manufacturers and jobbers have given serious thought to these matters and many others will be glad of the opportunity to hear more on these subjects.

The offices of the Western Economic Society are at Fifty-eighth street and Ellis avenue, Chicago.

## THE FEBRUARY MEETING OF THE ILLINOIS CHAPTER OF A. S. H. V. E.

Last Monday evening, February 10th, members of the Illinois Chapter of the American Society of Heating and Ventilating Engineers met at Vogelsang's restaurant in Chicago, to enjoy a festive and educational treat, the first part of which consisted of delectable viands to tickle the palate, while the second half was given over to instructive talks of interest to those assembled.

H. M. Hart, of the L. H. Prentice Co., heating contractors, was one of the speakers of the evening. His paper was listened to with keen interest and his remarks evoked much favorable comment from the members. Mr. Hart talked of methods of computing the cost of operation in residence heating, and then he took up the expense of heating in flat and office buildings. On the subject of residence heating, Mr. Hart's talk developed the fact that in actual practice the consumption of fuel for residence heating averages 3 tons per sq. ft. for direct, and 6 tons per sq. ft. for indirect heating, taking air supply from out of doors. Comparison between steam and hot water heating the speaker said showed no consistent difference in cost of operation.

In his remarks on the cost of heat operation in flat buildings, he pointed out that the burning of Pocahontas coal saved the flat owner approximately \$3.50 per ton as compared with the burning of Anthracite coal, and that the average fuel consumption ranged from  $2\frac{1}{2}$  tons to 4 tons per 100 sq. ft. of direct radiation per heating season. Thus it was explained that the cost of heating with semi-bituminous and anthracite for direct steam radiators is approximately \$24.00 per 100 sq. ft. per season for anthracite coal and \$13.50 for semi-bituminous, such as Pocahontas. It was said that the objection to using soft coal is the increased attention required, and the dirt.

Mr. Hart expressed the opinion that it will generally be found to be the case that where the fuel consumption runs light the boiler is too small for the job, or the

draft is poor, and that when it runs low the building is only partially heated.

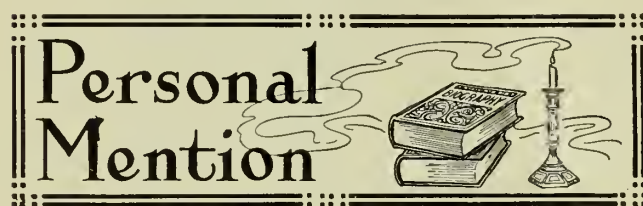
The speaker later took up the subject of office building heating and the relative costs, going into the matter in careful detail.

G. W. Hubbard, of the D. H. Burnham Co., was the other speaker on the program. He said in part:

"The chairman has asked me to state how I would estimate the cost of maintenance of a heating plant from plans. From this viewpoint the statements that I make must be more or less personal, for the premises on which I base calculations and the methods by which I arrive at the results may be widely different from those used by others. In fact, there will probably be a great difference in the results obtained by any two or more engineers, and yet the figures of cost of maintenance of plants that have come under my observation, check sufficiently close to the results I have calculated that I feel justified in stating that the methods used furnish a very close approximate of what the cost will be.

"The smaller the plant the greater the cost of heating will be per square foot of radiation, largely on account of the cost of labor, but the question as to how much it will cost to keep his building heated properly is just as vital to the small owner as to the larger one, and that is one of the first questions asked of an architect."

J. M. Stannard, president of the chapter, presided at the meeting. The next meeting of the chapter will be held on Monday evening, March 10th, at Vogelsang's restaurant. The subject will be that of ventilation. The progress of ventilating tests at the experimental room of the Chicago Normal School will be discussed. The principal speaker of the evening will be Dr. W. A. Evans, ex-commissioner of health. He will address the members on the progress of compulsory ventilation laws.



John D. Blake, of the Blake Specialty Co., Rock Island, Ill., has just returned from an extended trip along the Pacific Coast. He reports business good in that part of the country.

Edward B. Denny, of Newark, N. J., president of the National Association of Master Steam and Hot Water Fitters, has just returned from a trip to the Pacific Coast in the interest of that organization.

E. N. Skinner, who has been covering New York state territory for the Columbus Brass Co., has been transferred to Ohio and Indiana with headquarters at Kenton, O.

E. H. Giles, Philadelphia manager of the Pierce, Butler & Pierce Manufacturing Co., of Syracuse, N. Y., sailed on January 25, from New York, on the steamship "Kron Princess Cecilia," of the Hamburg American line, for a brief cruise to the West Indies and Panama. He will reach New York on the return voyage on February 19th.

A. P. Goldsmith, formerly connected with the New York office of the Williamsport Radiator Company, of Williamsport, Pa., has lately taken up the duties of manager of the Philadelphia office of this concern. Mr. Goldsmith's many friends will be interested to know that he recently became a benedict, having married Miss Anna Frances Wurth, of Brooklyn, N. Y.



J. C. Pierson, 38 Vesey Street, New York City, representing the Brock Wrench Mfg. Co., of New York City; The Barnes Tool Co., New Haven, Conn., and Otto Bernz, Newark, N. J., spent last week in Chicago. He left New York January 16 and has been covering the trade in Canada. His trip will carry him as far west as Denver, Col., and he does not expect to be back in New York until the latter part of April. Mr. Pierson reports that he finds trade conditions unusually good so far in his trip.

#### A NEW TYPE OF BOILER STAND.

Phillips Bros., 2832 Madison Street, St. Louis, Mo., have recently put on the market a combination boiler stand with connections that is unique and of real practical value. The stand has a screw thread in the upper end which is inserted in the bottom of the boiler (No. 5); a lock nut on the stand which tightens, supporting the ring to the bottom of the boiler (No. 4). At Nos. 1, 2 and 3



The Phillips Combination Boiler Stand.

are connected the pipes which lead into the furnace or water back of a range, and which may be connected to a gas water heater, if desired.

This device should be of real interest to the trade and undoubtedly the manufacturers will fill a want that already exists.

Circulars will be sent by the manufacturers on application. Mention "Domestic Engineering" when writing.

#### A NEW "PORCELOID" WATER CLOSET SEAT.

As the plumbing trade has found it more or less difficult to secure water closet seats to fit the new type of extended front and projected raised lip bowls, the Sanitary Specialties Co., 1824 East Clearfield Street, Philadelphia, Pa., has innovated the idea of carrying in stock, in its "Porceloid" white finish, seats to fit these bowls. They believe that in specializing in this manner that

many people in the trade will be substantially assisted. We show herewith a seat, finished in "Porceloid," to fit the extended front type of bowl. Seats finished in the same manner to fit the projected raised lip and standard raised lip bowls, the manufacturers state, they stock in



A New "Porceloid" Water Closet Seat.

square back pattern. This company will gladly mail its catalogue, showing the various types of these special seats to interested parties on request.

#### UNITED BRASS MANUFACTURING CO. ISSUES ATTRACTIVE CATALOG.

Catalog "C" recently issued by the United Brass Manufacturing Co., Cleveland, O., must be examined to be thoroughly appreciated. The reproduction of the front cover shown in this column conveys an idea as to its artistic appearance. The cover is illustrated in two colors,



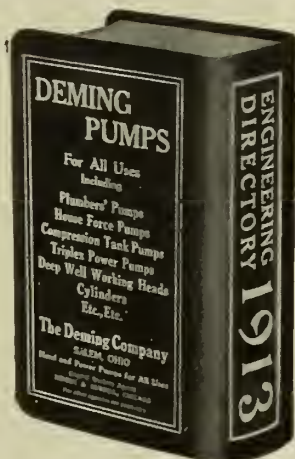
Front Cover Design of the United Brass Mfg. Co.'s New Catalog.

bringing out the trade name "United" in prominent fashion. In its pages are displayed and described in detail a complete line of "United" ground key work, compression work, fuller work, bath cook combinations, brass valves, solder nipples, solder unions, gas cocks and plumb-

ers' specialties. A copy of this catalog will be mailed to any member of the trade upon request to the above-named company, mentioning "Domestic Engineering."

### THE "ENGINEERING DIRECTORY" FOR 1913 MAKES ITS APPEARANCE.

The 20th annual edition of the "Engineering Directory" was published this week and it is a great improvement over any previous edition. The work of revision began as soon as the 1912 edition was issued was kept up steadily, and continued until the last section had gone to press. Many changes have occurred during the present year; new firms have come into existence and old ones have gone out or changed their addresses. The aim of the publishers of the Engineering Directory is to keep up with the times and furnish a volume which will be of real value in the manufacturer's selling campaign, and as a reference book and purchasing guide for the dealer. The section devoted to the products of manufacturers contains approximately 4,000 classifications. The 1913 edition contains the following lists:



1. Jobbers and Dealers in Mill, Steam, Mine, Heating and Lighting Supplies, Tools and Machinery in the United States.

2. Jobbers of Plumbing, Steam and Gas Fitting Supplies in the United States.

3. Dealers in Plumbing, Steam and Mill Supplies in Canada.

4. Wholesale Dealers in Hardware in the United States and Canada.

5. Manufacturers' Agents, representing Manufacturers of Mill, Steam, Mine, Plumbing and Heating Supplies.

6. Alphabetical List of Manufacturers of Plumbing, Heating, Lighting, Mill, Steam and Mine Supplies in the United States.

7. Classified Directory of Manufacturers of Plumbing, Heating, Lighting, Steam and Mine Supplies in the United States.

8. Purchasing Agents of the Principal Railways in the United States, Canada and Mexico.

9. Leading Architects in the United States.

10. Gas Companies in the United States.

11. Waterworks Companies in the United States.

12. Cement Mills in the United States.

13. Trade Associations and their Officers, Declaration of Principles and list of members of the American Supply & Machinery Manufacturers' Association.

14. Cross Index to Manufactured Articles classified in the Directory.

The price is \$5.00, delivered by prepaid express. The book is bound in genuine leather, handy size (4x6¾), contains 1,540 pages, with thumb indexes and a complete cross index to approximately 4,000 articles listed.

The book is published by The Crawford Publishing Co., of Chicago, and it is sold by the Book Department of "Domestic Engineering," 445 Plymouth Court, Chicago.



### FAIR DEMAND FOR PIG IRON.

Consumers of iron have not been buying freely in any market, but the heavy sales reported late last year carry over until March and April, and in consequence there is no likelihood of any demand springing up for strictly spot iron. For forward delivery consumers continue to hold off largely because they are not fully convinced that present prices are reasonable.

The sharp decline in coke which occurred last week bringing the price of coke in the Pittsburgh district down to \$3 per ton at oven has helped sentiment as far as consumption was concerned, but is taken as a poor argument on the price of pig iron, the reasoning being that if furnaces secure their coke so much cheaper they should be able to secure iron for less money. This is very true, but on the other hand, the fact is not taken into consideration that when the spectacular advance was made in coke last summer there was not such a corresponding advance in pig iron. It formerly was a rule that the price of iron will be about seven times the price of coke, and this would give an iron price of \$21 now and \$28 last summer, which was entirely out of question.

The unfilled order of the United States Steel Corporation decreased 104,000 tons during January, which was smaller than expected.

Quotations are as follows:

No. 2X, Northern Foundry, New York....\$18.00 to 18.50  
No. 2 Plain Northern Foundry, New York 17.50 to 17.75  
No. 2 Southern Foundry, Birmingham.. 13.50 to 14.00

### OLD METALS.

New York dealers' buying prices are:

Light copper .....	\$12.00 to 12.25
Strictly crucible copper .....	13.50 14.00
Uncrucible copper .....	13.00 13.25
Uncrucible copper wire.....	13.00 13.25
No. 1 machine composition.....	11.50 12.00
No. 1 composition turnings.....	10.50 11.00
New brass clippings.....	9.50 10.00
No. 1 brass turnings.....	7.75 8.00
Cocks and faucets .....	9.50 9.75
Clean red carboxes.....	10.00 10.50
Light brass .....	7.00 7.25
Heavy yellow brass .....	8.00 8.25
Heavy lead .....	3.90 4.00
Tea lead .....	3.65 3.75
Scrap zinc .....	4.50 4.75
No. 1 pewter .....	35.00 36.00
No. 2 pewter .....	9.50 10.50
Close cut solder joints.....	9.00 9.25

### COPPER.

Consumers of copper have not purchased and offers have been made at lower figures almost every day—some offers have been as low as 15½ cents for small resale lots. The great trouble in the copper market is that European consumers do not buy. It is difficult for those who have not closely followed conditions in Eu-



rope to comprehend the fear which has possessed all Continental Europe. They fear the trouble in the Balkans will spread and are husbanding their resources and restraining their activities. This is being felt with increased severity in the United States every day in the constant withdrawals of gold. It is still the opinion copper will sell lower.

### TIN.

Prices are around 49c with more activity than usual. The consumption in Europe is falling off but in the United States continues unabated.



February 18, 19 and 20, 1913.—The twenty-second annual convention of the Ohio State Association of Master Plumbers, at Toledo, O., with headquarters at the Boody House. The officers of the association are: President, John F. Drees, Cleveland; vice-president, F. W. Sponseller, Canton; secretary-treasurer, Eb Ellen, 2057 East 93rd street, Cleveland; board of directors, Harry S. Smith, Warren; Wm. E. Girkins, Toledo; John J. Vogelpohl, Cincinnati; Charles Hoffman, Mansfield.

February 19, 1913.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The sessions will be held at the Builders' Exchange. The officers of the association are: President, W. W. Hughes, Minneapolis; first vice-president, Louis Neinaber, St. Paul; second vice-president, F. J. Spriggs, St. Paul; treasurer, Arthur Doyle, St. Paul; secretary, S. B. Harvey, Minneapolis.

February 19, 1913.—Winter meeting of the Eastern Supply Association, at the Hotel Astor, New York City. The secretary of the association is Frank S. Hanley, 261 Broadway, New York City.

February 20 and 21, 1913.—Annual convention of the Nebraska Master Plumbers' Association, at Fremont, Neb., with headquarters at the Eno Hotel. The officers of the association are: President, J. C. Bixby, Omaha; vice-president, G. H. Wentz, Lincoln; treasurer, F. W. Barclay, Beatrice; secretary, J. B. Coningham, 401 City National Bank Bldg., Omaha.

February 24 and 25, 1913.—Annual convention of the Missouri State Association of Master Plumbers at Joplin, Mo., with headquarters at the Connors Hotel. The officers of the association are: President, Edward C. C. Reisel, St. Louis, Mo.; first vice-president, G. A. Wood, Springfield, Mo.; second vice-president, H. B. Schulte, Joplin, Mo.; treasurer, Jas. P. Carroll, St. Louis, Mo.; secretary, C. L. Smith, Kansas City, Mo.

February 26, 1913.—Winter meeting of the Central Supply Association, at the Hotel Sherman, Chicago. The secretary of the association is Paul Blatchford, 1915 City Hall Square Bldg., Chicago.

March 10 and 11, 1913.—The twenty-second annual convention of the Kansas Master Plumbers' Association, at Kansas City, Kan., with headquarters at the Hotel Grand. The officers of the association are: President, A. P. Elder, Ottawa; vice-president, W. S. P. Gill, Hutchinson; treasurer, F. H. Bowers, Emporia; secretary, E. D. Draper, 644 State Avenue, Kansas City, Kans.

March 11 and 12, 1913.—Annual convention of the New York State Master Plumbers' Association at Buffalo, N. Y., with headquarters at Hotel Iroquois. The officers of the association are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, 161 Columbus avenue, New York City; executive clerk, John E. Dugan, 4 Monroe street, Albany, N. Y.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: President, George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 14 and 15, 1913.—First annual meeting of the National Pipe and Supplies Association, at the Hotel Sherman, Chicago. The general secretary of the association is George D. McIlvaine, of Pittsburgh, Pa.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

May 20, 21 and 22, 1913.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky. The officers of the society are: President, Thomas J. Claffy, City Hall, Chicago; vice-presidents, Dr. H. K. Beatty, Pittsburgh, Pa.; W. J. Yackley, Dayton, O.; Charles M. McHugh, Cedar Rapids, Ia.; R. H. Ellithorpe, Fresno, Cal.; Jas. E. McGrath, Louisville, Ky.; secretary and treasurer, L. J. Lawler, Pittsburgh, Pa.

May 27, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind. The officers of the association are: President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

June 23, 24 and 25, 1913.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gomers, 260 West Broadway, New York City.

### MAINE STATE ASSOCIATION OF MASTER PLUMBERS HOLDS MID-WINTER MEETING.

The mid-winter meeting and election of the Maine State Association of Master Plumbers was held Thursday, January 30, at Augusta, with a good representation of the plumbers of the state in attendance. After the reports of the president, secretary and other officers had been read the officers were elected as follows: President, F. E. Wheeler, Woodfords; vice-president, C. H. Babb, Bangor; secretary, J. E. Donovan, Winthrop; treasurer, D. A. Calhoun, Portland; executive committee: E. W. Karrigan, Lewiston; A. Anthoine, Biddeford; Roscoe Hanson, Waterville; C. Madison, Woodfords; W. A. Stewart, Livermore Falls.

It was voted to hold the summer meeting at Gurnet and the following committee was named to have charge of the affair: E. M. Goss, Lewiston; C. F. Eaton, Brunswick; and Charles Dolliver, Lewiston.

Those present at the meeting were J. H. Chase, T. W. Karrigan, F. W. Goss, J. B. Smith, Lewiston; James Boyman, Ellsworth Hayden, P. Mahoney, D. A. Calhoun, R. A. Godfrey, Portland; Christopher Madison, F. E. Wheeler, Woodfords; R. W. Hanson, John Fardy, E. Arnold, Waterville; A. L. Sprague, Presque Isle; C. O. Eaton, Brunswick; E. P. Goodhue, Belfast; E. H. Reid, Charles Taber, J. H. Cogan, Augusta; C. H. Babb, Bert Fairbanks, Bangor; J. E. Donovan, Winthrop; George Reid, Frank Kelly, Gardiner.

#### JERSEY CITY ASSOCIATION ELECTS OFFICERS.

The annual "get-together" meeting and regular election of the Jersey City Master Plumbers' Association was held on Thursday evening, February 6, 1913, and the following were the members elected and installed to the different offices:

President, H. E. Becker; first vice-president, Jos. A. Sprouls; second vice-president, John M. Pentland; third vice-president, John Henderson; financial secretary, Valentine Ringle; recording secretary, M. P. Moran; treasurer, Wm. J. Cross; sergeant-at-arms, Jas. W. Crosby.

Trustees: Jas. A. Joans, Charles Werner, Wm. B. Jackson.

Sanitary Committee: J. W. Corcoran, R. Entwistle, R. Edgar.

There was a social session after the meeting which was largely attended.

#### STATE CONVENTIONS NEXT WEEK.

The Minnesota Master Plumbers' Association has completed arrangements for the convention which they are to hold at Minneapolis on Feb. 19. The meeting is to be held in the Nicollet Hotel, beginning at 10 a. m. Wednesday morning. Opening addresses will be omitted and the business of the convention will be pushed rapidly. At six o'clock dinner will be served, in lieu of the usual banquet. At eight o'clock an informal smoker and entertainment will be held at the Builders' Exchange. A stereopticon lecture on boilers and radiation will be a feature; interesting athletic numbers and "smokes" will make the evening short.

On Feb. 20 and 21 the Nebraska Master Plumbers' Association holds its convention at Fremont, headquarters being maintained at the Eno Hotel. As always, this is to be a meeting of live-wires, as the Nebraska plumbers are up and doing every minute. Some important legislative matters are to be considered.

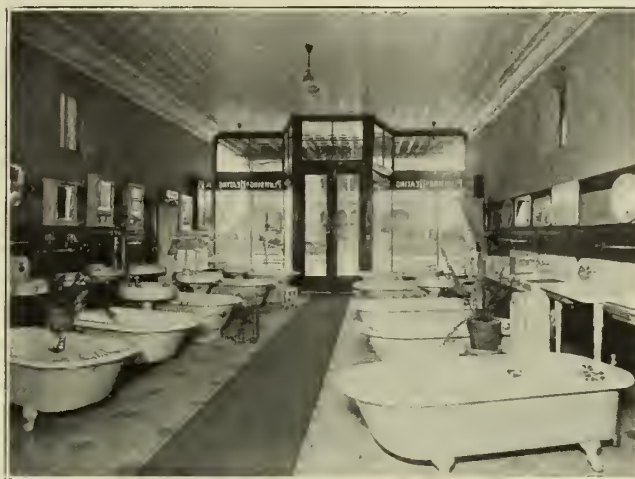
The Ohio Master Plumbers are to have headquarters at the Boody House, Toledo, Tuesday, Wednesday and Thursday, Feb. 18, 19 and 20. This is expected to be the largest meeting ever held by the state association, and great preparations are being made to take care of the visitors.

#### COLUMBUS, OHIO, MASTER PLUMBERS ENTERTAIN.

Last Thursday evening the Master Plumbers' Association of Columbus entertained with a lunch and smoker at the Builders' and Traders' Exchange. Hon. Judge Ripley gave a talk on "Modern Business Methods," which was well received. The points made by him went home to many men in the trade, who, while appreciating the situation fully, had not given the subject the serious thought that it demanded. Music enlivened the evening, and the members and invited guests departed with the feeling of an evening well spent.

#### AN ATTRACTIVE SHOW ROOM IN TEXAS.

In traveling over the country it would be hard to find another shop that maintains a show room more attractive than the one of Ed. E. Eastham, of Beaumont, Texas, shown herewith. All the modern, up-to-date fixtures and bath room equipment are shown. This firm has at the



Show Room of Ed. E. Eastham, Beaumont, Texas.

present time the contract for plumbing and steam heating in the county jail and county court house. The amount of this contract is \$6,000; also the new city hall and city jail building, the contract price for the plumbing and heating being about \$5,000. This firm also has a contract for the plumbing and heating in a new ward school and an office building for G. W. Smith Lumber Co. Mr. Eastham is chief of the Beaumont fire department.

#### MINNEAPOLIS NEWS.

R. F. Rippe, who was in the plumbing business in Minneapolis a number of years ago, has again opened a shop on 20th avenue North, near 6th street.

Victor Turner has sold his plumbing shop on Lake street and gone to work as a journeyman for Hineline & Co.

L. Mendelsohn, for some six months conducting a plumbing shop on 6th avenue North, has gone back to work as a journeyman.

Hineline & Co. have recently done a considerable job of remodeling their showroom at 211 South 5th street, and now have one of the most attractive places in the Twin Cities. Tiled sample bathrooms add to the attractiveness of the display, and results that well repay the outlay are already being seen.

#### IOWA NEWS.

Connell & Co., of Iowa City, have leased the Lane building at West Liberty for five years and have opened up a high grade plumbing and heating establishment under the name of Morgan & Co., Mr. Morgan having been their foreman at Iowa City.

"Bud" Chapman, proprietor of the Nevada Plumbing and Heating Co., Nevada, Iowa, lately surprised his friends by taking unto himself a life partner.

Mr. Holmberg, of Peterson & Holmberg, Fort Dodge, Iowa, who was taken with smallpox while attending the Iowa convention at Sioux City three weeks ago, is now convalescing and will soon be back on the job.





Baldwin, Ia.—F. E. Vanderbilt has opened a plumbing establishment in this town.

Northfield, Minn.—R. Leivestad has purchased Jordan Zanmiller's plumbing business.

Mt. Carmel, Pa.—Joseph M. Madden has opened a plumbing and heating business at 42 West Third street.

Minneapolis, Minn.—C. G. Schaller has purchased E. F. Sahler's plumbing business at the corner of Plymouth and Third streets.

Shippensburg, Pa.—A new plumbing establishment has been opened in the Reddig block on North Earl Street, by C. D. Powell.

Olean, N. Y.—George Markel and James Shortell have bought the plumbing business formerly owned by Davis & Dunlavey, and will continue the business at the same location.

Watertown, S. D.—The Watertown Plumbing and Heating Co., which has just been organized, has purchased F. L. Smith's plumbing business at 316 Kemp Avenue, East.

East Pittsburg, Pa.—The Valley Plumbing Co. has been incorporated with a capital of \$5,000. The incorporators are Frank R. Magill, of Pittsburg, and John S. Kiehl, of Irwin.

Rochester, N. Y.—The Central Heating & Plumbing Co. has been incorporated with a capital of \$5,000. The incorporators are: Louis V. Zimmer, E. J. Hutter and John W. Ash, all of Rochester.

Saranac Lake, N. Y.—George L. Starks & Co. has been incorporated for \$50,000 to conduct a general plumbing and heating business. The incorporators are: Arthur A. Bouley, George L. Starks and M. J. Callanan.

Virginia, Ill.—The Virginia Plumbing and Heating Co. has been incorporated with a capital of \$5,000 to engage in a general plumbing and heating business. The incorporators are L. A. Patefish, C. M. Hubbard, Henry B. Handschu and Matt Yapple.

White Plains, N. Y.—W. G. Dawson & Co., has been incorporated with a capital of \$2,000 to conduct a general plumbing business. The directors are: Wm. G. and Jennie R. Swanson, James and Margaret Packman, all of Mount Vernon, N. Y.



El Paso, Tex.—Elliott & Barry Engineering Co., of this city, has secured the contract for the installation of a heating plant in the new armory building at Las Cruces, N. M.

Richmond, Va.—The American Heating & Ventilating Co. has secured the contract for the heating and ventilating plant in the Ligon school in Columbia, S. C. Amount, \$5,746.

Peoria, Ill.—Cody & Shea have been awarded the plumbing contract on the new pavilion at South Park, amounting to \$1,885. The heating contract was secured by J. O'Neill & Sons for \$1,325.

Duluth, Minn.—The Neuman Heating Co. of this city has secured the heating contract for the W. B. Banks house. The plumbing was awarded to the Richards Plumbing & Heating Co.

Detroit, Mich.—Robert Addy, 1960 Fort street, S. W., has been awarded the plumbing contract in the new factory building of the White Star Refining Co.

Detroit, Mich.—The plumbing and heating contract in the factory building of the J. C. Wilson Co., Warren avenue and 15th street, has been let to J. J. Doyle & Co., 51 Bates street.

Bowling Green, Ky.—The Daughtry Heating & Plumbing Co. has been awarded the contract for installing plumbing and heating fixtures in the new McCormack building.

Clarksburg, W. Va.—The John O'Hare Co. has just signed a contract for the heating, ventilating and plumbing in the home for feeble minded children to be erected by the State of Pennsylvania and the city of Philadelphia on a farm near that city. This contract is a very large one. In addition to the above the same company has a number of large operations in Clarksburg, among which are two apartment buildings and a large office building.



#### Benjamin C. Davis.

Benjamin Cornell Davis, a master plumber for many years in Brooklyn, N. Y., died recently at his home in that city, in his fifty-eighth year. He is survived by his widow and one son.

#### William Gibson.

William Gibson, who had been engaged in the plumbing business in Port Huron, Mich., for the past forty years, died recently at his home in that city. Mr. Gibson was a well known master plumber in that part of the country and took active part in association affairs.

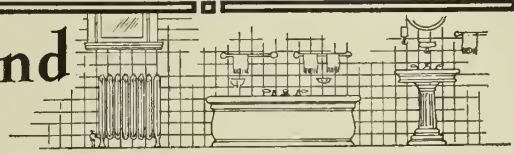
#### John N. Phelps.

John N. Phelps, who for years conducted a plumbing establishment in New Haven, Conn., died suddenly at the West Haven sanitarium on January 29, of pneumonia. Mr. Phelps was very well known both in business and social circles and is mourned by a host of friends. He is survived by a widow and two daughters.

#### Wilfred Cardany.

Wilfred Cardany, of North Adams, Mass., for many years master plumber of the Fitchburg division of the Boston and Maine Railroad, died at his home on Pleasant street in that city. Death was caused by pneumonia with which he had been ill but a few days. He was 67 years of age, was born in Chazy, N. Y., and had been a resident of North Adams 32 years. He is survived by a widow, two daughters and one son.

# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—The Board of Education is considering plans to introduce plumbing instruction as a part of vocational training in the public schools. The officials of the board met with a joint committee representing the Master Plumbers' Association and the Journeymen's Union. It was suggested at the meeting that the master and journeymen plumbers co-operate with the professors of the three public technical schools of the city. The master plumbers, it is said, are in favor of a theoretical evening course for apprentices now learning the trade in the shops. These courses it is suggested should be under the supervision of those who have mastered the plumbing craft from a practical standpoint.

The Chicago Master Plumbers' Association at its regular monthly meeting, held Friday, February 7th, passed resolutions in memory of the late T. A. Hill, of New York City, formerly president of the National Association of Master Plumbers.

Charles C. Breyer, master plumber of Chicago, his wife and his son, Carl, are enjoying the balmy breezes of Florida. They decided recently to break away from the wintry northern blasts and go in for a little spell of real recreation in the sunny southland.

William N. Hayward, a sanitary engineer and master plumber of New York City, was a visitor in Chicago, a few days ago. He came here to look over some of the sanitary features of plumbing in the big manufacturing plants of the city. He visited the stockyards and said he was favorably impressed with the system of drainage and water filtration that he saw there.

Jacob Weber, north side master plumber, is the proud possessor of a relic of old Chicago days. Some time ago his men dug up an ancient wooden water main in the basement of Peacock & Co., jewelers on State Street. The pipe had been in the ground since 1840.

Peoria.—The Peoria Plumbing and Heating Co. have just completed their removal to a new building, where they are much better prepared to look after the needs of their customers. Their show room is a model of attractiveness.

## Minnesota

Minneapolis.—We have just past the first month of the year 1913, which has been a very satisfactory one to the jobbers, manufacturers and the plumbing and heating trades in general; inventories are taken, salesmen back on their territories and every one in trim for a large season's business.

J. A. Shogren, 2819 Hennepin avenue, is installing the heating in the new Minnehaha Academy on 4th avenue S. Hineline & Co., 211 5th street S. have secured the plumbing in the new depot at Mobridge, S. D., and the plumbing and heating in the new depot at Webster, S. D., both for the Chicago, Milwaukee & St. Paul Railroad Co.

Miller & Horwitz, who for the past eight months have been in the plumbing business on Western Avenue, have dissolved partnership, Miller continuing in the business.

Chas. Wilkins & Co., 610-12 3d avenue S., were successful in closing up three nice large contracts, being the heating in the Men's Club, 2008 Minnehaha avenue; the plumbing and heating in the Studebaker Garage at Harman place and Hennepin avenue, and the plumbing and heating in the large residence of C. C. Weber at Crystal Bay, Lake Minnetonka.

### Two Successful Plumbing Contractors.

The accompanying photograph is a good likeness of Fred Deboer, West Duluth, Minn., and S. Knee, his brother-in-law, of Grand Rapids, Mich., both in the plumbing business. Mr. Deboer, formerly of Grand Rapids, Mich.,



Fred Deboer, West Duluth, Minn.; S. Knee, Grand Rapids, Mich.

spent a very pleasant holiday visit there, a visit that was necessarily limited, however, for a number of new contracts and the general rush of business demanded his return. He reports prospects for spring business excellent.



Wayzata.—Tebbitts & Wise, of this city, have secured the plumbing in the large new residence of Mr. Osburn at Minnetonka Beach, Lake Minnetonka.

Northfield.—R. Lewistad is installing the plumbing and heating in the new Lutheran church in this city.

Marshall.—S. H. Adams & Son were awarded the plumbing and heating contract in the new residence of C. S. Straub, Tyler, Minn.

International Falls.—Doran Bros. have closed the heating contract for the large new high school to be built here the coming spring.

St. Cloud.—J. P. Bisenius has secured the heating contract in the new Elks Home and the plumbing and heating in the new Minnesota hotel, which are being erected in this city.

Charles City.—Chas. Snyder was successful in closing up the heating contracts in the new residences of Mr. Briggs and Mr. Hunt, together with Mrs. Goddard's new school building.

Minneapolis.—Prices the past week have remained about the same, although an increase is looked for affecting certain materials. For the time of the year business is exceptionally good, which is very gratifying to the trade and those in the jobbing business.

Most of the work seems to be finishing, among which are some large flats and large residences, although the new work is reported to be increasing among the larger firms.

The Minneapolis Master Plumbers' Association had an interesting meeting and supper at the Nicolette House this week, at which there was an extra large gathering of master plumbers. L. H. S. Skiff, of Brookings, S. D., who happened to be in the city, was a guest at the meeting. A letter was read in which the National Association complimented the Minnesota state officers on their excellent state organization work and assured them of the assistance and co-operation of the National Association.

It was also settled to have the monthly supper meetings held alternately in Minneapolis and St. Paul, which had previously been suggested.

## Washington

Seattle.—One of the largest contracts ever awarded in the city of Seattle was given to the Rautman Plumbing & Heating Co., 617 Fourth Avenue, recently. The contract, amounting to \$150,000, was for the heating and plumbing in the 42-story L. C. Smith building now under construction on the corner of Second Avenue and Yesler Way.

Ernest Hardware & Plumbing Co., Inc., 514 Pike Street, has been awarded the following contracts for heating and plumbing in six residences: Q. M. Rupp, 201 N. Forty-sixth Street; A. L. Estes, 217 Fourth Avenue W.; A. L. Estes, 2113 Fourth Avenue W.; Wm. Geddes, 2533 Twelfth Avenue W.; H. D. Ludington, 1705 N. Forty-sixth Street; M. J. Nist, 714 Harrison Street. This company has also been awarded the contract for plumbing and heating in a school being erected in Montesano, Wash., on a bid of \$11,000 and for the Lawton School, Seattle, at \$17,000.

The Bungalow Co., Inc., 306 James Street, has been awarded the contract for plumbing in a residence at 2614 E. Oliver Street, for Millie Chambers.

The Independent Plumbing & Heating Co., 2404 First Avenue, will install plumbing and heating fixtures in the plant of the Times Printing Co., 1402 Second Avenue;

cost, \$600; also at 2467 Fourth Avenue N., for P. Simonson.

The Simpson-Pepper Co., plumbers and gasfitters, 322 Cherry Street, will install fixtures in building at 206 Pike Street owned by E. C. Neufelder. Work will cost \$2,000.

Hammond & Sessions, plumbing and heating contractors, 230 Madison Street, will install fixtures in a residence owned by Mary J. Matthews, at 3631 Densmore Avenue, at a cost of \$250.

Coleman & McGuire, Green Lake Boulevard, will install plumbing fixtures for J. B. Parks, at 510 E. Seventy-sixth Street.

Enterprise Brass Foundry, 92 W. Virginia Street, has been awarded the contract for plumbing fixtures by W. R. Bowser & Son, in a residence at 1812 McLellan Street.

### A Live Spokane Master Plumber.

Many of his friends will be glad to see the likeness of Louis A. Eggert, of Spokane, Wash., which with his shop, we reproduce herewith. Mr. Eggert is located at 4 Montgomery Avenue and has been doing business in this city for the past seven years. For twenty years



Louis A. Eggert's Plumbing and Heating Establishment at Spokane, Wash.

Mr. Eggert was in the plumbing and heating business at Milwaukee, Wis., where he was also alderman of the second ward from 1894 to 1898. He has been a member of the master plumbers' association since 1885 and for the past fifteen years has been a constant reader of "Domestic Engineering," which he says is a "trade wonder." Mr. Eggert is president of the Spokane association, this being his second term. He reports an excellent business for the season just closed and has some promising contracts on his books that will keep him busy for quite a while.

Kearney, Neb.—The plumbing business owned for about a quarter of a century by N. P. Matson, has passed into the hands of Harry Lambert who learned his trade with Mr. Matson.

## California

San Francisco.—According to manufacturers' agents, new business in pipe and general plumbing supplies is coming out rather slowly, owing to the fact that the wholesale houses placed large contracts before the advance in prices made much headway, and are now well supplied. The jobbing movement, however, is extremely large for this time of year, and there is every indication that within the next 90 days orders will begin to come out in large volume. In the pipe trade, the wholesale hardware firms seem to be doing better than the exclusive plumbing supply houses, as some of the latter have recently reported business hardly up to expectations, while the hardware houses note a much larger movement than usual at this season.

The Pacific Metal Works of this city, manufacturer of solder, etc., reports a large business, but notes considerable dissatisfaction among solder users owing to the high price of pig tin.

A large number of the leading plumbing firms have been building on the pipe system for the Exposition grounds. The lowest bid was submitted by Michael Murphy, but the contract has not been awarded. Figures were taken on several classes of material, and there seems to be some probability that the materials used will be largely wood stave and sheet steel pipe.

G. H. Foote, of the Robert Dalziel, jr., Co., says business with this firm is good, and that contracts are coming out in very satisfactory shape for both plumbing and heating systems. This company is getting a good share of the larger contracts. The company is just finishing the power plant installation for the state hospital at Patton, Cal., a \$25,000 contract, and is working on a \$50,000 contract for galvanized iron work in connection with the United States naval station at Pearl Harbor, T. H.

The Dalziel-Moller Co. reports a very satisfactory volume of business so far this year, and is looking for a steady growth of business through the coming spring.

A highly optimistic view is expressed at the San Francisco office of the John Douglas Co., which is booking all the business it can handle, and is preparing for the best year in its history.

The John G. Sutton Co. has been gradually extending the scope of its operations until it is equipped to handle work of many different kinds, and has recently undertaken large jobs at a considerable distance from its headquarters. Its work now includes heating and ventilating, plumbing, electrical work and tiling. Three contracts are under way on the new Tivoli theater, the plumbing and electrical work in which amounts to \$20,000. This company has also just taken a contract amounting to \$60,000 for cables, poles and trolley wire for extension of the Geary street municipal railway from Kearney street to the ferry and from 33rd avenue to the beach. The company also reports a number of recent contracts for work in apartment and hotel buildings.

The new and handsome quarters of the Mark-Lally Co. on Second street, in which special attention has been given to the convenience of customers, are rapidly becoming a rendezvous of the trade, and are visited every day by numerous visitors from outside.

Tom F. Leary, Pacific Coast manager for the H. Mueller Manufacturing Co., of Decatur, Ill., states that he is just unloading the first three-carload shipment of this company's goods as stock for the local branch, and ex-

pects several similar shipments within the next few weeks, which will put him in a position to fill all orders originating in the Pacific Coast territory without delay. The quarters are commodious and well arranged for handling goods, besides having the advantage of a central location, and the trade has already manifested a great deal of interest in the company's proposition to keep a distributing depot in this district.

The Temple Investment Co., recently incorporated, with offices in the Wright & Callender building, Los Angeles, proposes to acquire a suitable site with switching facilities where lumber, plumbing goods, paints and oils can be handled wholesale.

Plans for the new heating plant which is to supply heat for the new high school building at Billings, Mont., as well as the industrial building and the present high school building, have been accepted by the board of education. Bids for the installation of the heating plant and plumbing in the high school building are to be opened shortly in the office of Clerk A. J. Thorine, of the school district.

The Board of Trustees of Bakersfield, Cal., have awarded the Daly Plumbing Co., of that city, the contract for laying the water pipes in the parked spaces on Truxtun avenue. N. Greenberg & Sons were the only bidders for the contract for supplying the city of Bakersfield, Cal., with 35 fire hydrants and their bid of \$18.75 for single and \$27 for double hydrants has been accepted.

The plumbing firm of Sisk & Knight, of Yerington, Nev., was dissolved on the first of the year. Mr. Knight has opened a shop of his own in the Kaufman building on Main street.

Building Inspector Backus, of Los Angeles, has announced that plumbers and gas fitters must obtain permits before starting work on piping in buildings. The regulation is to be strictly enforced.

The city of Alameda, Cal., has just taken bids on the construction of a wharf and pipe line to supply water to the municipal electric light plant. The lowest bid was that submitted by the Robert Dalziel, jr., Company, \$16,229.

## Iowa

Albia.—The Albia Plumbing & Heating Co., Frank Landin, manager, has just completed the contract for sewage disposal plant at that place. This work included the building of septic tanks and laying of sewer through the city, and amounted to approximately \$10,000. As soon as work can be started in the spring the sewer will be extended throughout the city. This firm is also completing the plumbing and vacuum cleaning systems in the new high school building at Albia; contract, approximately \$7,000.

A new plumbing firm has recently opened a shop known as the Hunter Heating Co. Mr. Hunter has been with a local firm for a number of years previous to going into business for himself.

Burlington.—The H. Ewinger Plumbing & Heating Co. is just completing the plumbing contract in the Iowa State Savings bank, in this city. Amount of contract, \$12,000. This concern also has plumbing, heating and ventilating contract for the new Y. M. C. A. building, amounting to \$11,000. Mr. Wm. Ewinger, the head of the firm, reports a very successful year just closed and looks for the coming year to be equally good.



# Ohio

Dayton.—The members of the Dayton Master Plumbers' Association believe that there should be a master plumber on the State Board of Public Health, and delegates from the local organization to the state convention to be held in Toledo, February 18, 19 and 20, have been instructed to vote for a resolution to that effect.

Building permits for January numbered 405 and amounted to \$1,991,575. The number and amount of the permits for the month exceeded the total for the entire year of 1912 or any previous year in the history of the city. Practically all of the building construction for the year is represented by the permits already issued, as most prospective builders took advantage of the low building permit fee before the new ordinance increasing the charges went into effect. Contractors in all lines are much pleased with the outlook and expect a record-breaking year.

Chas. H. Hoglen, director of public service, is receiving bids for 800 tons of cast iron pipe, 3 to 12-inch, and 25 tons of refined pig lead.

Piqua.—M. A. McKale has succeeded the firm of Gerstmeier & McKale in the plumbing business at 125 North Wayne street, having purchased the interest of his partner, John A. Gerstmeier. Mr. McKale has several good contracts on hand, including the contract for the plumbing and gas fitting in the new high school building, amounting to \$8,945.

Alexander Hemmert, formerly with Gerstmeier & McKale, and his brother, Fred Hemmert, formerly in the employ of L. P. Marshall in the electrical business, have formed a partnership under the firm name of Hemmert Brothers, and will conduct a general plumbing and electrical business at 115 South Main street.

The contract for the heating and ventilating installation in the new high school building has been awarded to the Toledo Heating & Ventilating System, Toledo, O.

Troy.—Hatfield & Scott have sold their hardware business and will devote their entire attention to their plumbing business.

Toledo.—Contract for the heating installation in the addition to Glenwood School has been awarded to the Brice Heating & Ventilating Co., of this city, at \$14,000, and the contract for the plumbing work to the Eagan Brothers Co. at \$8,000.

Dayton.—Contract for the heating, plumbing, ventilating and gas piping work in the new Reibold office building has been awarded to M. J. Gibbons, 20 West Third street, at approximately \$45,000. This is one of the largest contracts of the kind that has been let here for some time and there were a number of bids on the work both from local and outside firms.

Philadelphia.—Talley & Wenzell, 1921 Commerce street, are making extensive alterations to the property at 248 North Delaware avenue for the Weightman Estate. Cost, \$2,000.

R. Harpers & Son, 217 North 16th street, have been awarded contract to install new plumbing in the building formerly occupied by the post office on Chestnut street, which is being transformed into an office building.

J. D. Garner, 3760 Kensington avenue, has been awarded plumbing and heating contract in the building at 2348 North Front street, which will be occupied by a department store.

Storch & Scheid, 1102 Wolf street, have been awarded

the plumbing and heating contract in the new building which is being erected at 1011 Girard avenue for L. Wentz.

M. Glick, 7th and Girard avenue, has been awarded plumbing contract to install fixtures throughout the properties at 1143 and 1441 Marshall street, for Lipschutz & Wurzel.

P. J. Hoft, 245 South 8th street, reports business good for the coming spring and is just finishing up a large heating contract on the Maria apartment house.

Kennedy Bros., Stenton avenue, Germantown, is the name of a new concern which has just gone into the plumbing and heating business. They report business good and have quite a few contracts in view for the spring.

Toledo.—Good speeches, a dance, a visit to the points of interest about Toledo, and special entertainments for the women will be features of the annual state convention of the Ohio State Master Plumbers' Association to be held in the old Elks' hall in the Valentine building, February 18, 19, 20. The Boody house will be the headquarters of the plumbers. President John A. Brooks, of the Toledo Master Plumbers' Association, will deliver the address of welcome and Mayor Whitlock and President Frank L. Mulholland, of the Commerce Club, will speak, as will John Gunckel. A shopping expedition of the ladies and a visit to Toledo's Art Museum will be features of the affair.

The Bryce Heating & Ventilating Co., of this city, has secured the contract for heating installation in the new state normal school at Bowling Green, O., at its bid of \$2,525. The roughing-in contract for the plumbing and gas fitting was let to the Huffman-Conklin Co., of Columbus, for \$2,160.

Cincinnati.—Many of the shops, especially the smaller jobbing plumbers, are decidedly busy with water meter installations. This is brought about by the new ruling of the water works department that all premises must have meters installed. It was fortunate for the plumbers that this ruling went into effect as the very mild winter afforded little jobbing work.

John W. Enright & Co., 713 Mound Street, are kept very busy installing water meters and report that there seems to be no end of business in sight.

Phillip Pfeiffer, architect, is taking bids on two residences costing \$5,000 each. One is for Rudolph Fack, at Sycamore and Liberty Streets, and one for William Ricklin, 595 Dixsmith Avenue, Clifton.

Mr. Ben C. Albert, 309 Rockdale Avenue, who had plans drawn last fall for a store and apartment building to be erected on Central Avenue, near 12th Street, by Architect Robertson and Fahnestock, has decided to proceed with the building of this improvement.

A. F. Keidel, 12 East 12th Street, who has taken over the business of the late Julius Grosse, is installing an up-to-date show room at his place of business.

H. W. Roose, 8 Harvey Building, Avondale, is contemplating the erection of a \$12,000 duplex flat building on the south side of Lincoln Avenue, between Winslow and May, Walnut Hills.

George Porter, who for many years was engaged in the plumbing business at 822 Clark Street, was suddenly stricken while at his shop and expired before being removed to his home.

Frank A. Moeller, 134 Calhoun Street, was awarded the contract to install the plumbing in bungalow being erected for Dr. Theodore Bange on the south side of McMillan Street.

William Hillenbrand & Co., 2307 W. 8th Avenue, was awarded contract for plumbing the \$25,000 residence of Dawson Blackmore, to be erected in Elmhurst Subdivision, as also in residence for George S. Haydock, on Holly Avenue and residence for Prof. A. B. Ellis.

Other plumbing contracts recently awarded were as follows: Cottage for John Forg to J. K. Irwin; Francis J. Farrell, store and apartment building to John J. Vogel-pohl & Co.; Acme Veneer & Lumber Co., garage, to Schwarz & Fern; \$8,000 residence for Isaac Lauterback, to Frank Hamer; post office sub-station at 854 Liberty Street, to Doyle, Fay & Co., and the Center Amusement Co., nickelodeon on Freeman Avenue, to Gibson, Schlemmer Co.

Frank Niesen & Co., 1208 Sycamore Street, were awarded plumbing contracts in the residences of Sol. Rosenbaum and R. & O. Wittekind.

Joseph Lamping of Lamping Bros., Avondale, accompanied by his wife, left for a trip to Cuba. They will spend most of their time in Havana.

Louis Dittoe, Provident Bank Building, has been awarded the commission to draw plans for the new twelve story addition to the Monro hotel. This will require two hundred bath rooms, containing tubs, closets, lavatories and showers, and will mean one of the big contracts of the year. He is also drawing plans for a new store building for the Fenton Dry Cleaning Co., at Harrison & Beeckman Streets, to cost \$20,000.

Plans for the public comfort station to be built at Peebles Corner are being revised by Architect A. L. Fehheimer and he expects to have these on the market soon for estimates.

Columbus.—Architect J. C. Goldsmith will soon award the contract for the heating and plumbing in the new Smith block on N. High street.

Dayton.—Employing plumbers of Dayton desire to have a master plumber from that city appointed on the state board. To that end the Dayton Association of Master Plumbers discussed the matter and will recommend one of the plumbers of that city.

## Kentucky

Louisville.—Campaigning for an enlarged membership is the latest activity of the men in the Louisville Master Plumbers' Association. The local organization during the past year has become very strong, at present numbering 90 per cent of the employing and buying trade of the city in its roster, but its spirit is such that the members do not propose to be satisfied with 9 out of every 10 possible affiliations, but are working toward the 99-out-of-every-100 mark. When ninety-nine or one hundred per cent of the plumbers in Louisville are joined together in the strong bond of the association and are boosting co-operatively for bigger and better business, the present administration of the L. M. P. A. will be pretty nearly satisfied.

John B. Stickler & Son, 417 W. Walnut Street, have a contract for a new installation costing approximately \$750. Five sinks, cast in one piece, and four wash-stands, with necessary sewer connections and a considerable length of gas piping, were installed by this firm in St. Joseph's Catholic Orphan asylum on Frankfort avenue in Crescent Hill.

New plumbing, including several sets of closets, stands and sinks, was installed in the new home of the Hope

Rescue Mission at 612 West Jefferson street recently by David Welsh, of Seventh and Walnut streets.

Bowling Green.—The Huffman-Conklin Company of Columbus has been awarded the contract for the plumbing and gas fitting on the new state normal school building at \$2,160.

## Massachusetts

Northampton.—C. C. Coates has the contract for heating and plumbing in the new Mount Sugar Loaf school house at South Deerfield. Work on the building will start as soon as weather conditions will permit.

Leominster.—Leominster is still looking for a plumbing inspector. The town recently adopted new plumbing rules calling for an inspector, but as yet no one has appeared overanxious for the place. The board of health has asked the civil service commissioners to set a date for a public examination for the position, which will be announced soon.

Lenox.—Contracts for heating and plumbing in the Lenoxdale school building have been let to The Halsey Co. and William B. Bull, respectively.

Marblehead.—Herman F. Snow has sold his plumbing stock to E. S. Doane.

## Wisconsin

Racine.—The annual meeting of the Wisconsin State Association of Journeymen Plumbers, Steam and Gas Fitters Association was held in this city Saturday and Sunday at the Eagles' club rooms. The association placed itself on record as favoring a bill in the legislature which will provide for the appointment of a state inspector of plumbing, who will have the power to inspect all plumbing installed in cities of first, second and third class, in order to protect the public from insanitary plumbing, which is declared to be one of the principal causes of disease. The bill, provided it becomes a law, will not only create the office of state plumbing inspector and of deputies, but will provide for the licensing of all master and journeymen plumbers who carry on their trade in the state. It was declared that the greatest amount of defective plumbing was found in cities where no local inspector has been provided, and that the proposed law would overcome this. A branch of the association, the Wisconsin Publicity Bureau of Plumbing and House Drainage, has secured photographs and reports on defective plumbing from many cities throughout the state. These will be taken to Madison and shown to the committee of the legislature when the proposed bill is offered. Frank King, of Milwaukee, a plumber of twenty years' experience, is in charge of the work of this bureau. Conditions throughout the state, as applying to plumbers, steam and gas fitters, were also discussed at the meeting. It was unanimously agreed that the conditions of employment were never better and that the wages were all that could be desired. Officers for the ensuing year were elected as follows: President, T. M. Ferguson, Madison; first vice-president, Frank King, Milwaukee; second vice-president, Harvey Thompson, Superior; third vice-president, George Slightom, Janesville; secretary-treasurer, J. J. Wiertz, Racine, who was also selected a second time as representative of this state at the national convention, which will be held in Boston.

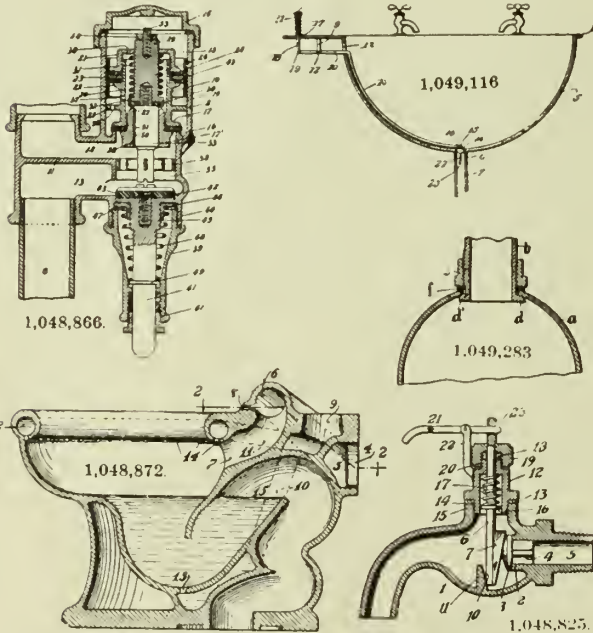




### Plumbing Department.

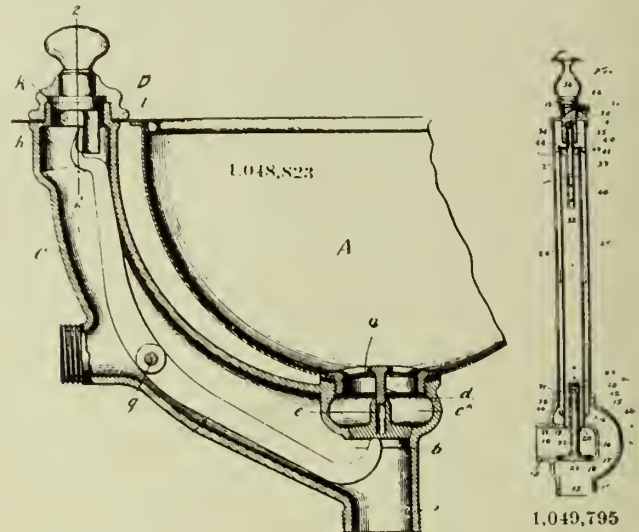
1,048,866 and 1,048,867. Flushing Valve. Thomas F. Payne, Pittsburgh, Pa. In flushing apparatus, a normally empty tank, a casing having inlet and outlet ports and a passage way leading to the tank, a valve for controlling the flow of water from the inlet to the tank and discharge outlet, a piston for controlling the valve, a relief valve for controlling the piston, and a third valve for controlling the flow of water from the inlet and tank to the outlet and adapted, when moved to closed position, to open the relief valve.

1,049,116. Basin. Archie Magnuson, Spencer, Iowa. The combination with a basin having a discharge opening therein, of a valve normally closing said opening, a pendulum stem depending from said valve and having a weighted end for properly seating the said valve in the opening, a hanger depending from the basin, an operating lever pivotally connected to the hanger and pivotally connected to the valve and a hand operated push stem supported by the basin and pivotally connected to the operating lever for actuating the same.



1,049,283. Pipe-Joint. Carl Westphal, Leipzig, Germany. A branch pipe joint comprising a main pipe with circular aperture bored in the wall thereof, a branch pipe having a head with lugs rigidly outstanding in fixed position on the opposite sides thereof, the over-all diameter of said branch pipe head at the lugs exceeding the diameter of the circular aperture in the main pipe, but being such as to permit the introduction of said branch pipe head through said aperture by inserting one lug through the aperture while the branch pipe is in angular position and then swinging the latter into substantial alinement with the axis of the hole so as to pass the other lug through the latter, a nut threaded on said branch pipe and means engaged between said nut and main pipe to seal the joint when the nut is tightened.

1,048,872. Water-Closet. Arthur J. Podmore, Camden, N. J. A water closet having a chambered portion above the bowl and a vent outlet nozzle located below the top of the bowl and having a channel connection with the chambered portion, said chambered portion having a channel connection with the interior of the bowl and a channel delivery above the top margin of the bowl.



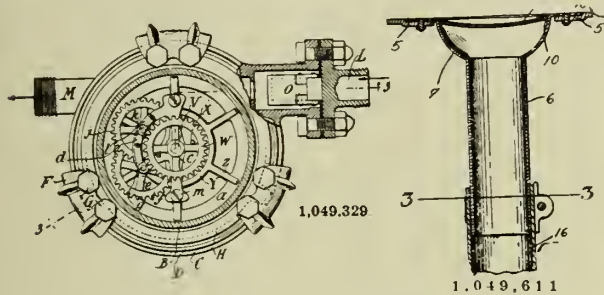
1,048,825. Means for Closing Valves. William U. Griffiths, Philadelphia, Pa. In a device of the character described, the combination of a casing having a port therein to permit the issuing of a fluid such as water thereinto, and the said casing having a projection formed upon the interior thereof at a point in front of the said port, a valve for closing the said port, a rod extending into the said casing and having a cam thereon for controlling the position of the said valve, the inner end of the said rod resting against one side of the said projection and being held in proper position thereby, and the other end of the said rod projecting from the said casing, and a hand lever having connection with the said projecting end for actuating the said rod to control the said valve.

1,048,823. Waste-Operating Mechanism for Basins and the Like. William Sydney Graham, Chicago, Ill., assignor to Federal-Huber Company, Chicago, Ill., a corporation of Illinois. In a device of the class described, the combination of a bowl, a casing separate from said bowl and secured to the bottom thereof by means of a perforated cap, said cap having a downwardly extending stem, said casing having an enlargement below said perforated cap, the bottom of said enlargement being shaped to form a valve seat, a valve held on said seat by gravity, and movable upward to release water in said bowl, said valve having a guide-way for the downwardly extending stem of said perforated cap, said casing having a tubular opening at its lower end for connection with a waste pipe, and a lever within said casing and pivoted thereto, said lever having a curved lower end engaging with the bottom of said valve and being movable upward to lift the valve against the pressure of water in the bowl.

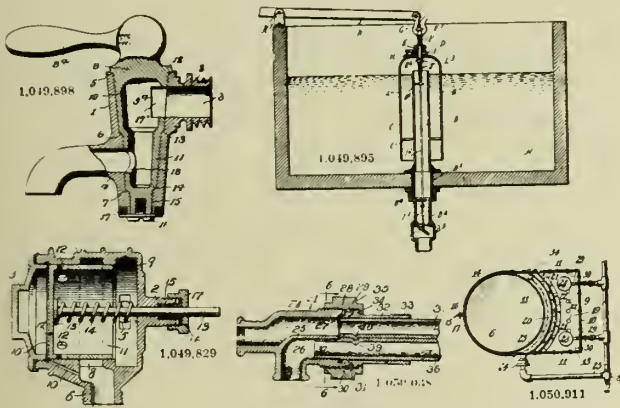
1,049,795. Waste and Overflow Mechanism. James Allingham, Chicago, Ill. A valve of the character described, consisting of a casing, means on the casing to connect with an opening in a vessel and with a drain pipe, an inner casing formed integral with said casing, a projection on the outer casing forming a by-pass between said casings, a valve seated in the casings, a stem on the valve extended through openings in said casings, a tube

rigidly secured to the inner casing and encircling said stem, a tube rigidly secured to the outer casing and encircling the inner tube and spaced apart therefrom, and manual means for operating the valve stem for opening and closing the valve.

1,049,329. Water-Meter. Fred Bangerter, New York, N. Y., assignor to The Standard Water Meter Company, Brooklyn, N. Y., a corporation of New York. A water meter having a casing inclosing the water chamber and formed in two parts with meeting flanges and clamps each of which passes integrally around the outside of the two flanges and holds them together against the internal water pressure, said clamps being weaker than the parts of the casing so as to yield before the casing yields in case of freezing.



1,049,611. Outlet Connection for Sinks. Charles Ora Schoonover, Los Angeles, Cal. The combination with a sink of the flat-bottom type, said sink having in the bottom thereof an outlet aperture surrounded by a shallow annular seat; of an integral internally smooth and unobstructed outlet pipe expanded at its upper end to form an annularly flanged cup the flange of which engages the shallow seat upon the bottom of the sink and is flush with said bottom, connecting bolts extending through the flange of the cup and through the recessed portion of the sink bottom constituting a seat, and a strainer detachably supported upon and within the cup.



1,049,898. Faucet. Alphonse F. Moneuse, New Rochelle, N. Y. A faucet, comprising a hollow body having inlet and outlet openings and its inner surface substantially conical in shape and provided with upper, lower and intermediate seats, and a chambered key having its outer surface conforming to the inner surface of the body and provided with orifices arranged to register with the inlet and outlet openings, and means for maintaining the key seated in the body.

1,049,895. Siphon Flushing Apparatus. John J. Meyer, Yonkers, N. Y. In a siphon flushing apparatus, a tank, a lever pivotally mounted thereon and provided at one end with a clutch, a long siphon leg passing through the bottom of the tank, a valve hingedly disposed therein, a

spring-pressed stem disposed in said long leg for normally holding the valve in closed position, a bell, a spring-pressed pin carried by said bell arranged to engage said spring-pressed stem, a head carried by said spring-pressed pin and arranged to be engaged by said clutch, the weight of the lever and clutch serving to press the spring-pressed pin downwardly against the spring-pressed stem, thereby causing the opening of the valve.

1,049,829. Water-Valve for Instantaneous Water-Heaters. John Ellis, Pittsburgh, Pa. In a water valve mechanism for instantaneous water heaters, the combination of a valve chamber casing having a water inlet, a water outlet, an annular groove about the valve seat communicating with the water inlet, a like groove at the forward end of the chamber communicating with the water outlet, and a pressure port extending between the rear of the chamber and water inlet, a cup-shaped piston valve arranged within said chamber with its head toward the rear end thereof and provided with a plurality of ports formed through its annular wall, and further provided with a leakage port communicating with the water inlet, a stem extending through the forward end of the chamber for moving with the piston valve, and a spring on said piston stem.

1,050,038. Thermosiphon Heating Apparatus. Ira J. O'Malley, Chicago, Ill. The combination of a fitting having a plurality of passages extending therethrough, a plurality of tubes communicating with said passages, a telescopic nipple connection between one of the tubes and one of the passages and separate means for holding the tubes in position.

1,050,911. Water-Heater. William J. Boland, Buffalo, N. Y. The combination with a boiler, of a casing removably applied to the exterior of said boiler and divided into two sections, one a cooking section having a burner and the other a water heating section between said cooking section and the boiler having a burner in operative arrangement to said boiler and an escape flue.

1,049,917. Bath-Tub. John C. Reed, Pittsburgh, Pa., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a corporation of New Jersey. A bath-tub provided with a peripheral rib on its exterior surface and integral therewith, and further provided with lugs formed integrally with the tub and with the rib, and holes through the lugs, substantially as described.

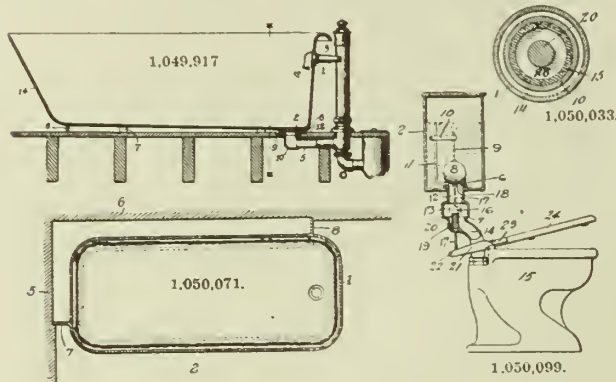
1,050,033. Frost-Proof Hydrant. James D. Martin, Oskaloosa, Iowa, assignor to Western Manufacturing Co., Oskaloosa, Iowa. In a hydrant of the class described, the combination of a lower valve casing having an annular valve seat, a cylindrical shell located within the valve casing and spaced from the walls thereof to provide an intervening annular space, which entirely surrounds the said shell, the lower end of the latter being spaced from the valve seat to provide an annular entrance to the said space, and integral connecting portion arranged at the top of the annular space and connecting the shell with the valve casing and having a frost hole extending from the inner face of the shell to the outer face of the valve casing, a reciprocatory valve guided in the cylindrical shell and including a lower half ball movable to and from the valve seat, an approximately cup-shaped washer located above the ball and arranged to cover and uncover the frost or drain hole and open at the top, whereby the interior water pressure will force the washer outwardly and cause the same to form a tight closure for the frost hole, and means for connecting the half ball and cup-shaped washer with the valve rod.

1,050,071. Bath-Tub. John C. Reed, Pittsburgh, Pa. assignor to Standard Sanitary Manufacturing Company.



Pittsburgh, Pa., a corporation of New Jersey. As an article of manufacture, an enameled cast-metal bath tub, consisting of a body portion having integrally-formed therewith a depending supporting rib and latterly-extending wings adapted when the tub is installed to form a closure between the tub and an adjacent wall.

1,050,099. Water-Closet. Oliver C. G. Brettell, Wilkensburg, Pa., assignor to Anchor Sanitary Co., Pitts-



burgh, Pa., a Corporation of Pennsylvania. The combination of a tank, a connection connected up to the outlet of said tank, a float valve in said tank adapted to close said outlet, said connection having a cylindrical portion, a piston valve adapted to enter said cylindrical portion, a rod extending through said piston valve, the upper end of said rod adapted to engage said float valve directly, the lower end of said rod extending through an opening in said connection to a point without, a thimble in said connection surrounding said lower portion of said rod, said thimble being in the path of said piston valve and closed thereby when said piston valve is lowered.

#### Government Contracts to Be Awarded.

Supervising Architect Oscar Wenderoth, Treasury Department, Washington, D. C., will receive sealed proposals, as follows:

Until 3 p. m., on February 19, 1913, for the extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring interior lighting fixtures, mail lift and approaches), of the United States post office and court house at Topeka, Kan. The work contemplated is the construction of a one-story and basement extension of approximately 3,100 square feet ground area, fireproof construction, exterior facing of stone and copper roof, and there will be certain repairs and alterations in the present building.

Until 3 p. m., on February 20, 1913, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of the United States post office and court house at Augusta, Ga. The building is of three stories and basement and has a ground area of approximately 11,000 square feet. Fireproof construction, except the roof, stone facing; terra cotta and wood cornice; tile and copper roof.

Until 3 p. m., on February 28, 1913, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring, and lighting fixtures), of the United States post office and court house at Pocatello, Idaho. The building is three stories and basement, with a ground area of approximately 4,500 square feet; fireproof construction, stone and brick facing, tin roof.

Until 3 p. m., on March 1, 1913, for the construction

(including plumbing, gas piping, heating apparatus, electric conduits and wiring interior lighting fixtures and approaches) of the United States post office at Frankfort, Ind. The building is of one story, basement and mezzanine, and has a ground area of approximately 5,000 square feet; fireproof construction throughout; stone facing and copper and tile roof.

Until 3 p. m., on March 5, 1913, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States postoffice at Grand Junction, Colo. The building is to be two stories and basement, and has a ground area of approximately 5,700 square feet fireproof construction, except ceiling and roof; brick and stone facing and tin roof.

Until 3 p. m., on March 13, 1913, for the extension, remodeling, etc. (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches), of the United States postoffice and courthouse at Springfield, Mo. The work contemplated is the construction of a 3-story and basement extension of approximately 4,700 square feet ground area. The first floor only is fireproof construction, exterior facing of stone, with a slate roof, and there will be certain repairs and alterations in the present building.

Until 3 p. m., on March 14, 1913, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States postoffice at Brookings, S. Dak. The building is to be of one story and basement and has a ground area of approximately 5,000 square feet; fireproof construction throughout, except roof; stone facing and copper and tile roof.

Until 3 p. m., on March 15, 1913, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring, interior lighting fixtures, and approaches), of the United States postoffice at Waukesha, Wis. The building is one story, mezzanine and basement, with a ground area of approximately 6,050 square feet. Fireproof construction except ceiling and roof; stone facing; copper and composition roof.

Until 3 p. m., on March 17, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Denison, Iowa. The building is one story and basement and has a ground area of approximately 4,200 square feet; fireproof first floor; stone and brick facing and tin and tile roof.

All proposals should be in accordance with drawings and specifications, copies of which may be obtained from custodian of the above sites, or from the Supervising Architect at Washington, D. C.

Binghamton, N. Y.—A contract has been closed between Douglas Sprague, Binghamton's electrical expert, and the Arlington hotel management, whereby Mr. Sprague will install a complete heating, lighting and refrigeration plant for the hotel when it is remodelled as planned and the large addition erected. The total cost of the improvements will be in the neighborhood of \$150,000. The plumbing work will include 175 baths of the most modern design. James O'Neil is the general contractor. The plumbing contract has not been let.

Moline, Ill.—Frank P. Styvaert has retired from the presidency of the Sanitary Plumbing & Heating Co., 515 14th Street, and is succeeded in the management by N. J. Hansen, an experienced plumbing and heating man, who has been connected with the company for some time.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing/Heating, Ventilation and all Matters Relating to Domestic Sanitation*

Whole No. 1054

CHICAGO, FEBRUARY 22, 1913

Vol. 62, No. 8

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

"Domestic Engineering" says: A plumber may be an excellent workman, but to be a successful business man, conscientious study of business methods must have his attention as well.

#### CHANGING PUBLIC SENTIMENT.

**S**HOULD not our state and national conventions devote some of their time to a consideration of the fact that the general public believes that many plumbing contractors charge excessively for their wares and services?

If hastily answered this question is likely to receive a determined negative,

Because the proposition seems less vital than others that precedent has made part of the regular program.

Sometimes we become so absorbed in scheming out improvements in our work that we altogether forget to inquire what all that work is for.

Things that we can't see or feel, like public sentiment or good-will, are mighty hard to take seriously.

Yet many a business man or politician who couldn't, has gone bump without ever being able to analyze the disaster.

Probably the general public's opinion wasn't so far wrong at one time.

Almost everything gets overdone on its profit side in its infancy.

And plumbing is a new science—that is, comparatively new.

Likewise the end-man in the minstrel show and the funny-fellow on the newspaper had a hand in moulding that opinion.

But it is an erroneous opinion, as we all know.

Yet the rabbit has nothing on erroneous opinion when it comes to propagation.

And erroneous opinion never helped the sale of anything—not even plumbers' services.

Why not give the matter ten minutes' discussion?

Perhaps some of the newspapers would consider it good copy, and there's nothing like advertising, even against an erroneous opinion.

#### MOTOR TRUCK SHOW INTERESTS PLUMBERS.

**T**HERE closed last week in Chicago the most successful automobile show yet held here.

The attraction of the pleasure vehicle show, held the first week, did not, however, overshadow the motor truck display, which held the boards during the second week.

The interest shown by the plumbing and heating fraternity in this display was especially noticeable. There were in attendance members of the trade from such states as Texas, Kansas, and Minnesota, as well as many from territory adjacent to Chicago.

The inquiry from the trade was for high grade equipment, as a rule. The manufacturers and jobbers of plumbing supplies were largely interested in the three and five-ton models, while the lighter trucks appealed to the plumbers and heating men who inquired. Quite a few plumbers, however, are now considering two and three-ton trucks.

Several models were shown especially adapted for the use of plumbers and heating men, while other manufacturers advised that they were able to furnish bodies designed for this use.

For the benefit of those who were unable to attend the show, "Domestic Engineering" will take pleasure in answering inquiries relating to the various makes of motor trucks and will endeavor to be of assistance to those who contemplate such purchases.

Illustrations of trucks just purchased by Chicago jobbers are shown on another page.



# Plumbing in Greenpoint Hospital, Brooklyn

The Department of Public Charities of Greater New York  
Has Adopted the Most Modern Methods in This Building

**W**ORK has recently been started on what is to become one of the finest of Brooklyn hospitals and which, before completion, will cost about \$375,000. This hospital is known as the Greenpoint Hospital and is located on Bullion street, between Kingsland avenue and Debevoise avenue. The erection of the building is being made by the Department of Public Charities, of which the Hon. Michael Drummond is commissioner, in accordance with the plans and specifications prepared by Frank J. Helmle, architect, of Brooklyn, the engineer for the work being Frank Sutton, of New York City.

## Plumbing Work.

The plumbing work on this hospital, which will cost about \$39,000 is being performed by James Harley & Co., of Brooklyn, N. Y.

## Drainage System.

The house sewers and underground plumbing pipes are of extra heavy cast iron and likewise all fresh air pipes. A complete layout of the basement drainage lines is shown in Fig. 1. The vertical lines of the entire soil, waste and vent system except where connections are made to fixtures is of galvanized wrought iron supplied with Y and T's recessed drainage fittings at points required, and an elevation of a few typical risers is shown in Fig. 2.

The outside leaders are connected to the drain with cast iron pipe, commencing 5 ft. above the grade, while all inside leaders are of galvanized wrought iron. The branch waste and vent pipes are of heavy galvanized wrought iron with recessed fittings, no lead being used except for water closet bends and vent connections. All the exposed piping at or near the fixtures is in general of nickel-plated brass.

The traps for the house sewers are of extra heavy cast iron, with two cleanouts closed with brass cleaning screws. The main traps have a fresh air inlet connected

on the house side, and all leaders are trapped before being connected to the house drain. The wash basins have 1½-in. traps, the slop sinks 3-in. iron traps in general, ordinary sinks 2-in. brass traps, and urinals 2-in. traps cast in the bowl, while water closets are trapped in the bowls with earthenware traps. Cleanouts are provided on the drainage system with brass screw caps set in graphite and oil, and all water closets and slop sinks with earthen trap standards are set in heavy brass screw floor flanges.

The inside floor cesspools, excepting those in the toilet rooms and a few other cases, are of a spherical shape with a 3-in. outlet and a locked strainer supplied with hot and cold water.

The toilet room partitions for the urinals, showers, water closets and other fixtures, and also the marble work for the sinks, are constructed of first quality gray Tennessee marble of 1-in. thickness and of a single piece. All fronts are 2 in. thick and are set into the floor, while the partitions start 6 in. above the floor level and have an average height of 6 ft. 6 in., with caps 2 in. high and 3 in. wide. A layout of a typical toilet room and its soil, waste and vent piping, is given in Fig. 3.

## Fixtures.

The plumbing fixtures to be installed in this hospital are briefly outlined below:

The water closets are deep seal syphon jet, with non-soiling flushing rim and concealed jet, and with the sanitary perfect screw connection; polished birch-stained mahogany seat, with nickel-plated hinges, nickel-plated brass flush valve, with integral stop valve; nickel-plated brass connections to wall.

There are also some water closets same as above described, but without the raised porcelain front and fitted with white non-split seat and cover.

There are also some syphon wash-down water closets

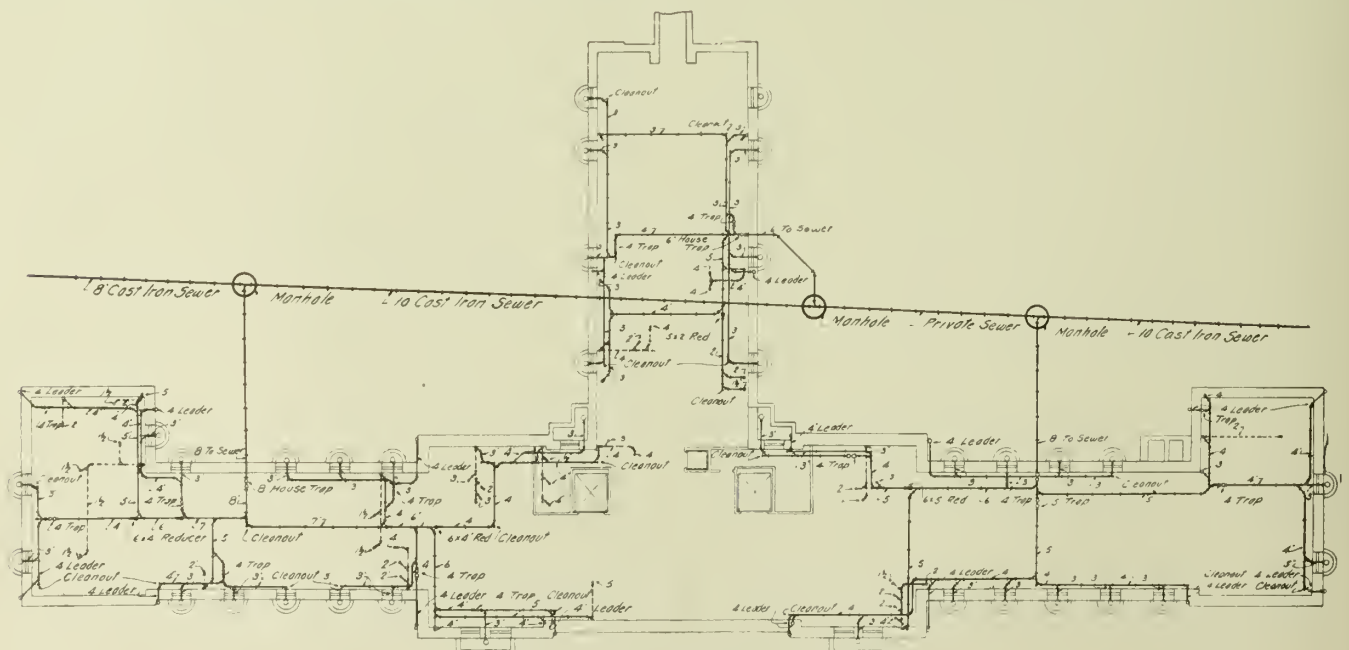


Fig. 1. Basement Plan of Drainage and Private Sewer.

with integral porcelain seat and the sanitary perfect screw connection, with nickel-plated push-button flush valve, with integral stop valve and with nickel-plated connection to wall.

Other water closets are syphon wash-down, with sanitary perfect screw connection, birch-stained mahogany seat; nickel-plated brass push-button flush valve, with integral stop valve and connections to wall, with escutcheons.

The urinals are vitreous porcelain lipped with brass trap for 2-in. iron pipe and vitreous porcelain trap shield, fitted with nickel-plated inlet coupling; nickel-plated push-button flush valve, with nickel-plated stop valve, lock shield and stem for detachable key; not local vented.

The baths are porcelain, 5 ft. 4 in. long, with glazed exterior; nickel-plated high bell nozzle combination supply and waste fittings, with nickel-plated sprinkler and rubber tube.

There are also some enameled iron roll rim baths 5 ft. 6 in. long, with exterior finished white; nickel-plated brass high bell nozzle combination supply and waste, with china name plates marked "Hot" and "Cold" and with nickel-plated supply pipes to floor, with unions.

The lavatories are extra heavy vitreous porcelain 24 x 19 in., with integral back and wall support and with china caps for the bolts at back; nickel-plated brass waste plug and coupling and nickel-plated waste; nickel-plated slow self-closing push-button faucets, with china name plates marked "Hot" and "Cold;" nickel-plated brass adjustable trap to wall for 1½-in. iron pipe.

There are also some extra heavy vitreous porcelain lavatories, with integral backs, ground to set against wall and with concealed supporting brackets, size 27 x 24 in. with nickel-plated goose-neck nozzle with rose spray; nickel-plated clover knee action supply valves; with stirrup angle, nickel-plated supply pipes to wall, with stop valves; nickel-plated lock shields, nickel-plated supply pipe from valve to nozzle; nickel-plated clover knee action waste; nickel-plated adjustable trap to wall for 1½-in. iron pipe.

There are also some extra heavy vitreous porcelain lavatories 27 x 22 in., with vitreous porcelain pedestal nickel-plate combination supply and waste, with china name plates marked "Hot" and "Cold;" nickel-plated adjustable trap to wall for 1½-in. iron pipe; nickel-plated supply pipes to wall with angle stop valve, with nickel-plated lock shields.

The double lavatories are 54 in. long and 25 in. wide by 14 in. deep, of porcelain, with two bowls and with porcelain legs; two nickel-plated goose-neck nozzles, with rose sprays; two nickel-plated clover knee action valves and stirrup handle and with nickel-plated supply pipes to wall, with stop valves, with lock shields and nickel-plated supply pipe from valve to nozzle and nickel-plated clover knee action waste; two nickel-plated brass adjustable traps to wall for 1½-in. iron pipe.

The sinks are porcelain roll rim 36 x 23 x 7 in. deep, with porcelain legs and reaches to wall; nickel-plated brass ⅝-in. long shank compression sink, Fuller faucets; nickel-plated brass 2-in. adjustable trap to wall for iron pipe; nickel-plated standing overflow and waste in recess in back of sink.

There are also vitreous porcelain sinks 25 x 17 x 5½ in. deep with nickel-plated waste plug and coupling; chain stay and stopper; supported with enameled iron standard; supply hot and cold water through nickel-plated compression goose-neck faucets, with china name plates marked "Hot" and "Cold;" waste through nickel-plated

brass adjustable trap to wall for 2-in. iron pipe. These sinks are equipped with drain boards.

The sinks in kitchen and scullery are wrought iron 36 x 24 x 18 in. deep, with waste plug and coupling and galvanized iron P trap to wall; each compartment is supplied with hot and cold water through ¾-in. Fuller pattern faucets, with all-metal handles and hose end on cold faucet. Sinks are supported with wrought iron frames and legs and waste through galvanized iron 3-in. connections and grease trap; porcelain lined inside and white enamel painted outside, equal to the finish as applied to bathtubs and have 2-in. galvanized iron connections to wall.

The sinks in scullery are same type, but of four compartments, supported with galvanized iron frame with flange standards. The supply pipes set above partitions

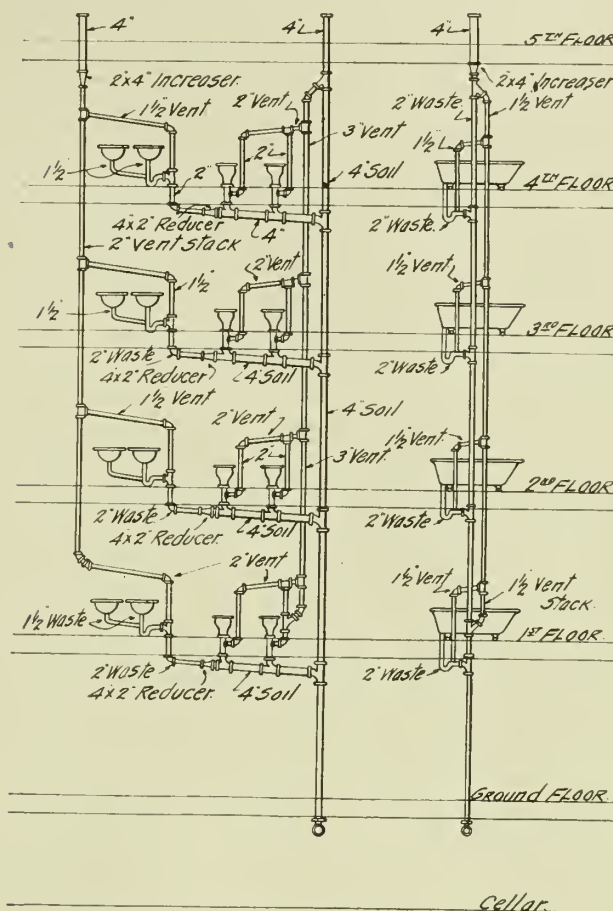


Fig. 2. Typical Soil, Waste and Vent Risers.

and have stop valves with stems for detachable keys and lock shields.

The drain boards are of heavy grooved ash, with curbs and polished brass angle clamps and polished brass rods with nuts; supported with 1½-in. diameter galvanized iron standards, with heavy flanges at floor.

There are also sinks of extra heavy vitreous porcelain 30 x 26 in., with vitreous porcelain legs; nickel-plated brass waste strainer, plug and coupling; nickel-plated brass 2-in. adjustable trap to wall for iron pipe; nickel-plated brass ⅝-in. compression sink faucets, with china name plates marked "Hot" and "Cold;" with ash drain board, nickel-plated brass wall hinges and telescopic legs.

There are also some porcelain sinks with porcelain legs; nickel-plated brass wall supports; nickel-plated clover knee action supply valve, with stirrup handle and



nickel-plated low-down spout; pipe from valve to spout and supply pipes to wall, with stop valves, nickel-plated lock shields, nickel-plated brass 2-in. adjustable trap to wall for iron pipe.

Another type of sink is of porcelain 36 x 23 x 7 in., porcelain legs; nickel-plated brass wall supports; nickel-plated clover knee action supply valves, with stirrup handle, nickel-plated goose-neck with extra large removable rose spray; 8½ x 2½ in. nickel-plated supply pipes to wall, with stop valves, with nickel-plated lock shields, nickel-plated supply pipes from valve to goose-neck, nickel-plated clover knee action waste; nickel-plated adjustable trap to wall for 2-in. iron pipe.

Another type used is a porcelain sink 30 x 27 in., with nickel-plated standing overflow and waste in recess at end; nickel-plated brass standard; nickel-plated brass goose-neck compression pantry sink faucets, with china name plates marked "Hot" and "Cold;" nickel-plated brass 2 in. adjustable trap to wall for iron pipe; nickel-plated supply pipes to wall, with angle stop valves, with nickel-plated lock shields.

The flushing rim sinks are extra heavy vitreous porcelain with integral overflow, size 16 x 20 x 10 in. deep with 2 in. brass waste plug and vitreous porcelain strainer, nickel-plated brass ¾-in. angle valves to control supply to flushing rim and nickel-plated brass combination compression supply faucet, with china name plates and porcelain standard; nickel-plated brass 2-in. adjustable trap to wall for iron pipe; sink fitted with oak drain board, with white enamel bracket.

There are also used some enameled iron roll rim sinks 30 x 20 x 6 in. deep, with integral back; cast iron legs; nickel-plated brass waste strainer, plug and coupling; nickel-plated compression Fuller faucets, with all-metal handle; nickel-plated brass 2-in. adjustable trap, with nipple to wall, with iron pipe. The exterior of sink and legs is white enamel painted of the same finish as applied to bathtubs.

A few galvanized iron sinks are 24 x 20 x 12 in., with open strainer and patent overflow; galvanized iron back and legs; polished brass ¾-in. tee handle compression faucets, with hose end on cold faucet, galvanized iron P trap with nipple to wall threaded for iron pipe.

The last type of sink is an extra heavy vitreous with integral back and trap to wall, with nickel-plated flush valve, with integral stop valve and nickel-plated brass supply pipe from cleansing jet to wall, with rough brass hot and cold supply valves, with removable bonnets, with china name plates marked "Hot" and "Cold."

The slop sinks are vitreous porcelain roll rim 24 x 20 x 12 in., with trap standard and nickel-plated brass waste strainer, trap standard with nickel-plated brass combination compression faucets, with china name plates marked "Hot" and "Cold" and with pail hook and brace to wall, trap standard to be white enamel painted, same as the finish applied to bathtubs.

The showers are nickel-plated 5-in. diameter rain-head type, with cast brass removable slotted face and nickel-plated brass new model mixing valve, with index plate shower with adjustable ball joint. The mixing valve is placed on the side wall and fitted with nickel-plated stop valves, with nickel-plated lock shields and with nickel-plated mixing column from control valve to shower head; each stall is fitted with a nickel-plated brass 5-in. waste strainer with 3-in. plug and coupling and with nickel-plated brass 1½-in. curtain rod with end flanges and nickel-plated snaps and white duck curtain. The curtain is weighted at bottom with shot.

The washtubs are porcelain 30 x 26 in. with porcelain legs; nickel-plated brass waste strainer, plug and coupling, with china stay and stopper, nickel-plated brass ⅝-in. compression faucets, with china name plates marked "Hot" and "Cold." The washtubs have nickel-plated 2-in. adjustable trap to wall for iron pipe, and those in batteries have nickel-plated 2-in. waste pipe with ½ S trap to wall, with heel inlet on one tub and with waste on other tubs in the battery connecting with this trap.

### Water Supply System.

The water pipe is of standard weight galvanized iron pipe, the fixtures supplied with water on the basement, ground floor, and first floor being under direct pressure, and the fixtures in the second, third, fourth and fifth floors being supplied from a pressure tank system located in the cellar. A layout of the pressure tanks, pumps, etc., is shown in Fig. 4. All the main lines of supply pipes with their branches are of galvanized iron, as previously stated, but flush pipes are nickel-plated brass.

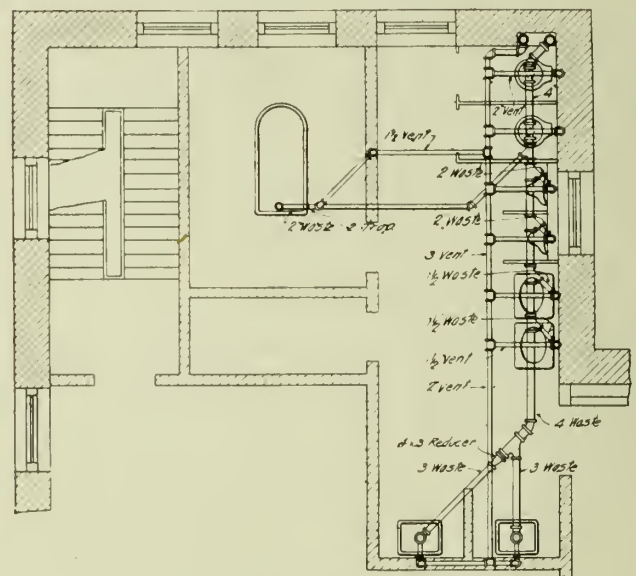


Fig. 3. Typical Bathroom and Piping.

Where the water pipes are exposed to the weather or liable to freeze they are covered with cork covering. The hot water is supplied from a system independent of the two various cold water pressures, and the main hot water supply line to the building is extended through the funnel to a hot water service heater outside of the structure. Wherever the hot and cold water lines are run parallel to each other they are separated by at least 6 in. or else the hot water lines are covered with an insulated covering. All the riser lines starting from the basement on both the hot and cold water system are separately controlled by gate valves at the base of the line.

All the hot water piping is installed with circulating returns, the circulating line paralleling the riser line and the main circulating return is carried back to the mouth of the tunnel. In general the water piping is carried in recesses and under the flooring, and when carried under the floor is placed in trenches with a space around to allow for expansion and contraction. All the hot water lines placed under the floor are covered with insulating material.

The cold water supply is brought in from the cast iron main located in the street through a 4-in. line which separates in the basement into branches running to the

Fig. 4. Basement Plan of Water, Fire, Brine and Vacuum Piping.



# Water—Its Properties and Practical Uses

## III.—Pumps and the Principles of Atmospheric Pressure, With the Application of Pneumatic Systems, are Here Described

By F. W. TOWER

### About Pumps.

**F**IGURE 1 is intended to show by the arrows how the atmospheric air presses down on the water, and, as the piston in the cylinder, or barrel, is moved up, a slight vacuum is formed, which is immediately filled by the water in the receptacle, or well, due to the weight of the atmosphere of 14.7 pounds per square inch.

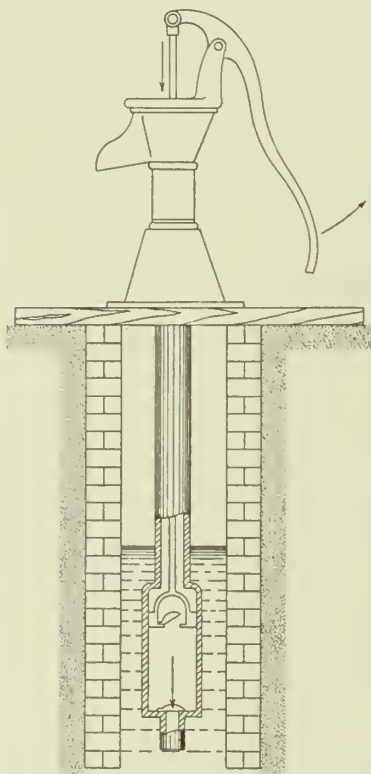


Fig. 1. Showing How Atmospheric Pressure Acts on the Water in the Well.

Applying the same principle to the pump as shown in Fig. 1: A lower disc, or valve, resting on a flat surface, is held down by its own weight.

The piston with the upper box or valve, when moved upward, will tend to lift the lower valve from its seat, and if a tube is extended downward to water, not exceeding 33 feet vertically, a continued operation of the piston will eventually exhaust the air between the lower valves and the surface of the water in the well, and the water will follow to fill the vacuum.

This water is lifted by the atmospheric pressure on the water as shown in Fig. 1.

Fig. 2 shows the ordinary suction pump.

(a) Pipe to water in well. (b) Lower valve in pump. (c) Upper valve or piston, operated by the brake or handle. (d) A metal disc with central guide pin acting as a bucket to lift the water after rising through the lower valve.

### The Force Pump.

The Force Pump differs from the Lifting Pump in several important particulars, but chiefly in the fact that the piston is solid; that is, it has no valves.

The water is drawn up the suction pipe, (as already described), when the piston rises; but when the piston reverses, the pressure on the water, caused by the descent of the piston, opens the valve *B* and forces the water up the delivery pipe.

When the piston again begins its upward movement, the valve is closed by the pressure of the water above it, and the lower valve is opened by the pressure of the atmosphere on the water below it.

Water may be forced to almost any desired height. No stuffing box is required for this pattern.

Fig. 3 represents the

### Single Acting Force Pump.

(a) Lower valve. (b) Upper valve. (c) Piston, solid. (d) Pump barrel.

**Action.** When the piston *C* is raised, valve *A* opens and water flows into the pump barrel *D* and valve *B* closes.

When the piston *C* is pressed down, valve *A* closes and valve *B* opens.

When valve *B* opens, the water in the pump barrel below the piston is pressed past valve *B* until the piston is below the branch outlet.

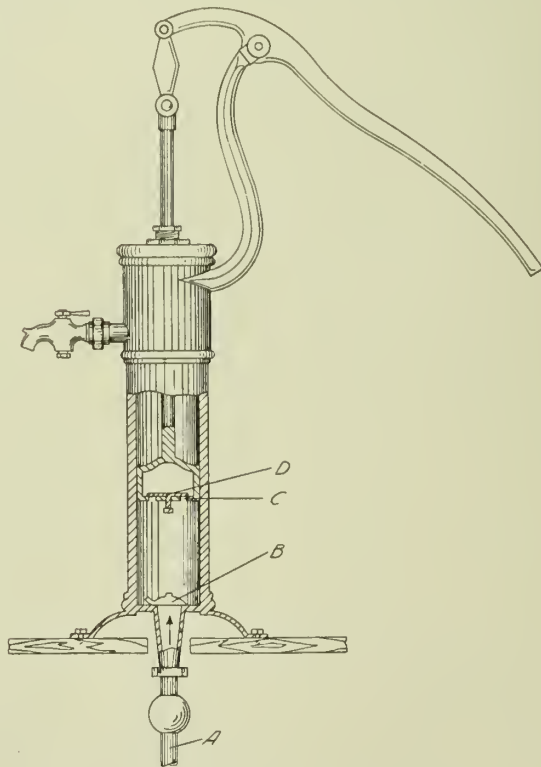


Fig. 2. Principle of Ordinary Suction Pump.

As the piston is again raised, valve *B* closes and valve *A* opens as before.

This operation being repeated, all the water forced through or above valve *B* rises to the elevation desired, being prevented from returning to the pump cylinder by this valve.

### Double Acting Force Pump.

In the pumps previously described, the discharge was intermittent; that is, the pump could only discharge when the piston was moving in **one** direction.

In some cases it is necessary that there should be a continuous discharge; in all cases it takes more power to run the pump with an intermittent discharge.

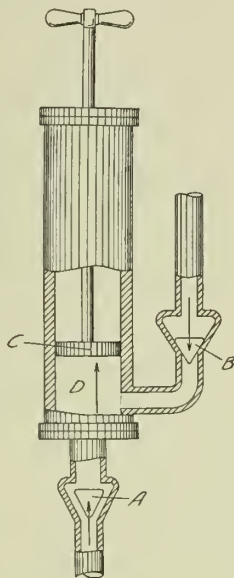


Fig. 3. Illustrating Principle of Single-Acting Force Pump.

If the water is to be raised to a considerable height, its weight will be very great, and the entire mass must be put in motion during one stroke of the piston.

To obtain the advantage of a more continuous discharge, double acting pumps are used.

The double acting pumps have duplicate valves and passages so that a lift and discharge are obtained by each motion of the piston.

A suction and discharge is produced at each stroke, thus causing a continuous stream which is rendered more uniform by an air chamber.

Air chambers should be installed on the discharge or delivery pipe.

Fig. 4 illustrates the working principles of the double-acting force pump.

(a) Pipe to water in well. (b) Lower valve opens when piston *G* is moving towards the brake or handle. (c) Upper valve closes as piston moves towards handle. (d) Air chamber to cushion water column. (e) Lower valve closes when piston is moving towards it. (f) Upper valve opens as piston moves towards it.

The water in that part of the cylinder moving towards valve *F*, is forced through to the air chamber and to the tank or receiving reservoir.

When the piston is reversed, valves *F* and *B* close, and *E* and *C* open.

In this manner water is being drawn into and expelled from the cylinder or barrel, at each stroke of the piston or brake handle.

### The Lift Pump.

The notable difference is in the location of the cylinder, which is submerged in the water at the lower end of the pump pipe.

There is no air below the plunger to exclude, and thus the water is lifted by successive strokes through the pump pipe, as with the ordinary type.

Of the two, this type works better, as the parts constantly submerged are tighter, but it is more expensive and harder to

get at than the "Suction" pump, which has all its working parts above the well within easy reach.

For deep wells the "Lift" pump with air-chamber attachment is excellent.

### Air Chamber.

Air Chambers are used upon lines of pipes to cushion the shock which accompanies the sudden stoppage of the water column, or the irregular movements of the water within them.

All natural water carries some air or gas in solution.

An air chamber tends to promote a uniform discharge and also equalize the strain upon the pump and prevents shocks due to the incompressibility of water.

To obtain a continuous flow of water in the delivery pipe, with as nearly a uniform velocity, an air chamber is usually placed in the delivery pipe of "force" pumps as near to the pump cylinder as the construction of the machine will allow.

The air chamber being filled with air, the water compresses it during the discharge.

During the suction, the air thus compressed, expands and acts as an accelerating force upon the moving column of water, a force which diminishes with the expansion of the air and helps to keep the velocity of the moving water column more nearly uniform.

### The Windmill Pump.

Windmill force pumps connected by rods to a wind wheel depend upon the action of the wind, which is intermittent and quite unreliable, thus requiring large storage tanks.

In order to get ample pressure by gravity they require an elevation which demands a strong frame to support the weight of the water stored.

The water freezes in winter, becomes warm and germ laden in the summer, and repairs are a big item of expense.

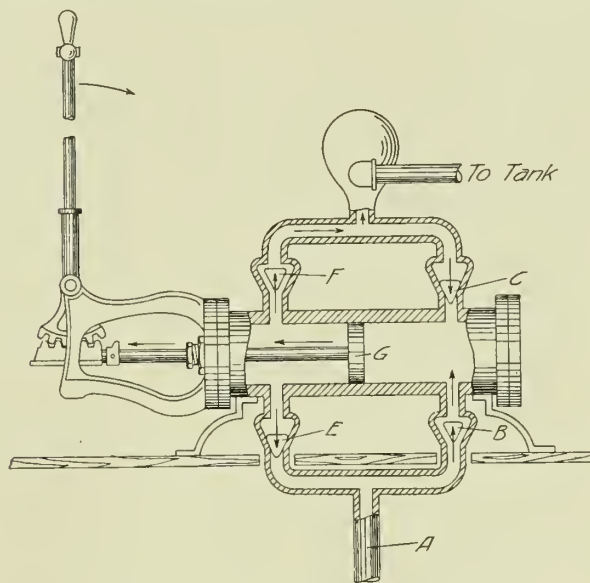


Fig. 4. Double-Acting Force Pump.

On account of the constant exposure, the elevated tank is subject to rapid decay and its life is comparatively short.

The attic tank does not give sufficient pressure to assist any in fire protection.

Until within a few years this method seemed to be the only feasible one, for isolated country communities.

Recently the action of compressed air, an old principle, is (now) being installed under the

### Pneumatic Water Supply System.

Pneumatic (air) pressure may be employed to convey water to a building by simply forcing the water into a large closed



receiver or vessel, furnished with an inlet and outlet pipe so attached that the air will be locked in the vessel and cannot be forced out with the flow of water.

Water from a cistern or well is pumped into an air tight tank, (steel.)

If in a cellar, both water and pressure gauges are more accessible for observation. When the tank is being filled, the air within it is compressed, and upon expanding extends the pressure equal to the amount of the volume.

An air tight metal cylinder *A*, having an outlet pipe *D*, and inlet pipe *B*, connecting to the delivery pipe *C*, of the force pump shown, the outlet pipe *D*, leads to the house to be supplied with water under pressure.

A check valve *E* prevents the water in *A* from flowing back into the pump cylinder or out of the draw off cock *F*, above the surface of the ground.

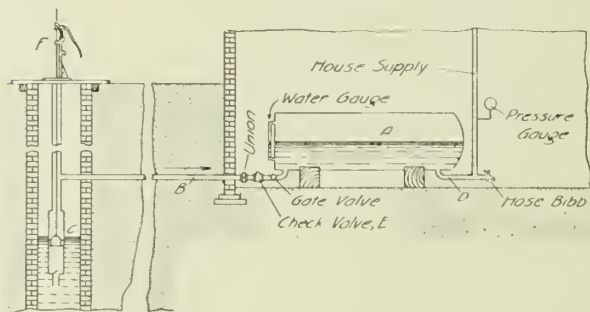


Fig. 5. Pneumatic Water System.

The pump cylinder is shown under water in the well, and is single acting, raising water only on the up stroke of the plunger.

Air is pumped in with each stroke.

An automatic air valve should be installed on pipe from pump.

The water gauge shows to the operator when the cylinder is low and needs replenishing.

An average pressure of 40 pounds may be obtained, which would elevate the water 92 feet vertically in the pipes.

(40 lbs. by 2.3 equals 92.)

This is a practical and reliable system for a country residence, hotel, institution or any other use where city water service is not obtainable.

Pneumatic supply furnishes:

1. Plenty of water, if well has capacity.
2. Cool water in summer.
3. No freezing, no exposed tank in air.
4. Fire protection.
5. No more expense than city service.
6. Decrease in insurance rates.
7. A plant that will be as desirable and inexpensive as any city pressure service.

#### Disadvantages.

1. The pressure will be irregular, gradually decreasing as the water falls in the tank.
2. Unless provision is made to force air into the cylinder, it will become absorbed by the stored water.

The first disadvantage is largely overcome by the use of a large tank, which furnishes a steadier pressure than the smaller sizes.

The second objection is overcome by the manufacturers who now build pumps with air compressors or other devices to supply a small amount of excess air to the tank from time to time.

(To be continued.)

#### THE MAN WHO DOES NOT READ.

He is very likely to be a little conceited and think that he knows just how to do things without help from any outside source.

He is inclined to think disparagingly of a "book" engineer or machinist, as he sees fit to call the man who reads and tries to keep posted and up with the times.

He is generally the first to condemn any new appliance that comes out. When the air brake was first introduced, we heard such an engineer denounce it as a "nuisance, and too much trouble; the engineer had enough to see to, without being brakeman."

When the automatic air brake first came out, the construction of the air pump was a great puzzle to the ordinary engineer and repair mechanic. At that time Allan McDuff, afterward general foreman of the B., C. R. & N. Railway shops at Cedar Rapids, Iowa, had charge of all mechanical mysteries. To solve the air pump details he consulted Appleton's Encyclopedia of Applied Mechanics and gained wisdom. By following up what he had learned in that book he became the best-informed man in Iowa concerning air brakes.

Not long since, one of our Western roads applied a few sight-feed lubricators to some of their locomotives. The man whose duty it was to explain to the engineer how to operate them had not carefully read the directions sent with the cups and was so totally ignorant of one very important valve, the intelligent use of which was essential to the successful working of the lubricator. The manufacturer had to send out an expert to save the reputation of one of the best appliances ever added to a locomotive.

A man who reads was placed in charge of one of our modern automatic stationary engines. The valve, and what was inside of the steam chest and cylinder, he had never seen, and, of course, knew nothing of its construction. He sent to the builder and procured a "descriptive catalogue," and in one evening by its perusal, he obtained a good idea of what was going on inside of that engine.

The man who does not read wonders what is inside, but does not find out until it is torn apart, and even then he does not get the builder's idea, and know why it is so made. It takes him weeks, months, or years to find out what a few hours of study would enable him to ascertain.

How many inventors spend long sleepless nights in "getting up" something, and then find out that the thing won't work, because it is not constructed in accordance with the laws of mechanics.

We know of a man holding a high official position on one of the largest railroads of the West who built, at a great expense to the company, a hydraulic piledriver, which, with two men, was to do the work of a ten-horse-power engine. He had seen the tremendous force exerted by a hydrostatic wheel press, and concluded that this was just the power to lift a piledriver ram, and as the pump was so small, two men could easily work it. It is needless to add that the result was a failure, and an addition to the scrap heap.

This is a fast age, and the man who expects to keep pace with the times must not expect to find out everything by the slow coach of experience, but take advantage of the delving of others, as it may be condensed in their writings. It saves time, hard work and many mistakes. —Railway and Locomotive Engineering Magazine.

Modesto, Cal.—The firm of Van Aken & Trueblood has purchased the entire plumbing stock of C. A. Galvin.

# Questions and Answers

## WHAT IS WRONG WITH THESE INSTALLATIONS?

Editor "Domestic Engineering":—Will you please tell us what will correct this heating apparatus? The gas heater will work all right but the hot water back will not

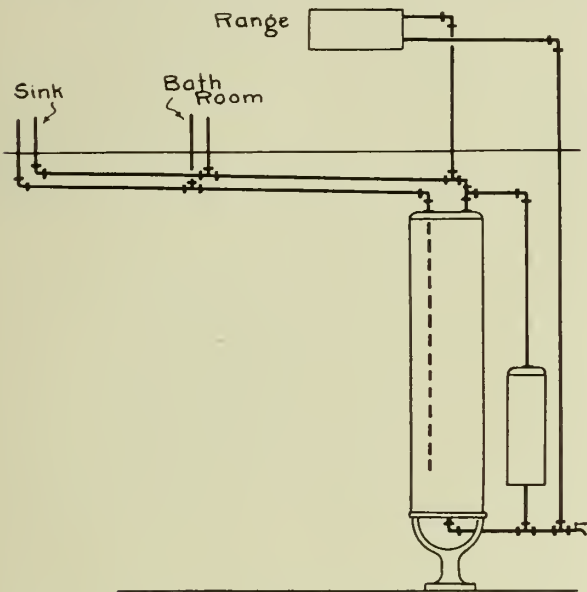


Fig. 1.

circulate the water either through the tank or through the gas heater, in fact it will not circulate at all. In-

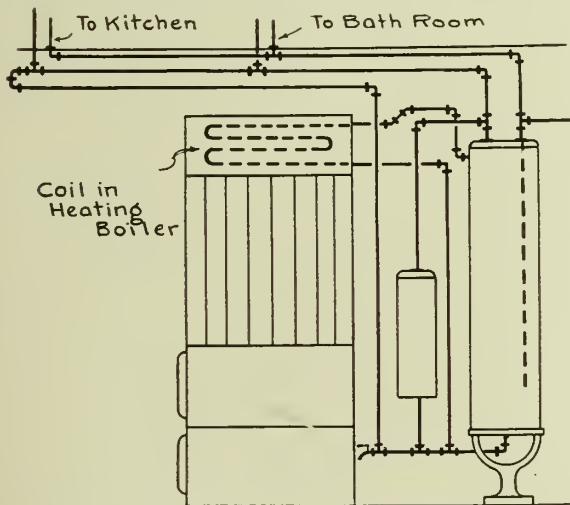


Fig. 2.

stallation No. 2 will not heat the boiler down to bottom with the coil in heating boiler. What is the trouble? Noblesville, Ind. Contractor.

In Figs. 1 and 2 we illustrate the two hot water supply systems that "Contractor" is having trouble with. In the

case of Fig. 1 there is little wonder that poor results are obtained from the hot water back, for it is not piped correctly. It should be remembered that when the range is above the boiler, it is in an unnatural position, and that it is not natural for hot water to flow downward freely. In order to make the hot water from the range flow down to the boiler, it is necessary to carry the flow pipe from

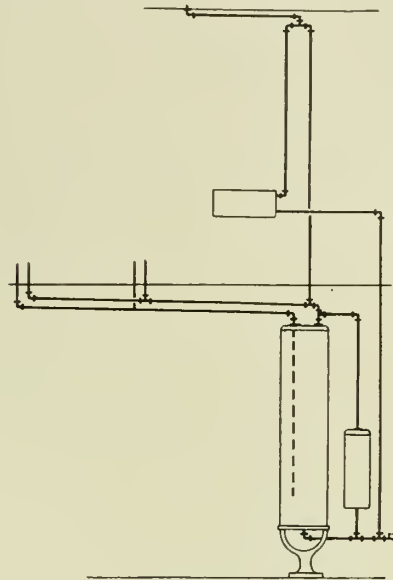


Fig. 3.

the range at least to the ceiling before dropping down to the boiler.

The proper connection is shown in Fig. 3. If the loop can be carried above the ceiling, the job will work so much the better. The great trouble with this work is that air will collect at the high point and prevent circulation. If possible, take off a connection to some fixture above, from this high point. If unable to do this, it will be necessary to place an air cock at this point which may be opened whenever the pipe becomes air-bound. "Contractor"

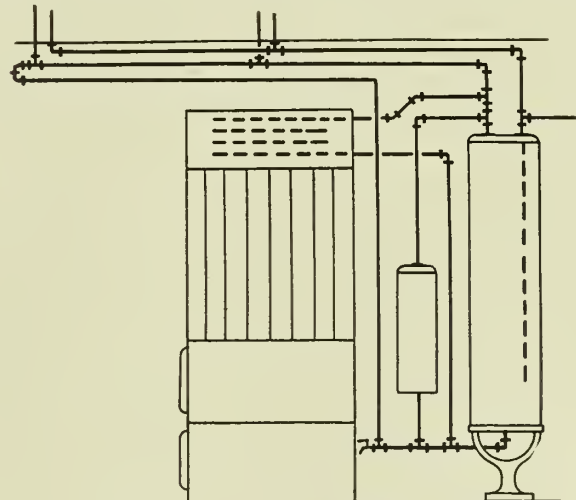


Fig. 4.

tor" should understand that at best, he cannot expect the range to do such good work as if it were in its normal location, on the same floor as the boiler.

Reference to Fig. 2 shows the flow connection from the coil in the heating boiler to the range boiler, very poorly made. No such connection should ever drop down, but



should rise throughout its course to the boiler. The coil is so high up that it is not practicable to connect it directly into the boiler, and the only proper course is to connect it as shown in Fig. 4, that is, into the flow pipe out of the top of the boiler. There is no reason why "Contractor" could not have made such a connection, as well as to have connected the gas heater in this very same manner.

### SOME QUESTIONS ABOUT A FAULTY HEATING INSTALLATION.

Editor "Domestic Engineering": Will you kindly give me your opinion on the following questions described in enclosed sketch?

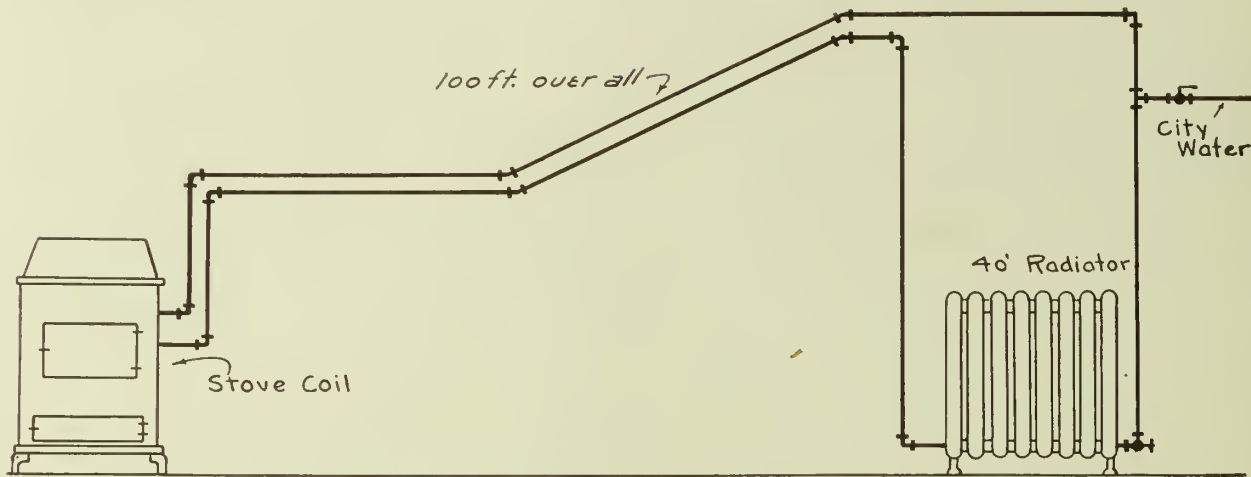


Fig. 1.

An ordinary stove in which is inserted a  $1\frac{1}{2}$  in. pipe forming a loop of about 2 ft. in length.

A  $1\frac{1}{2}$  in. pipe running through two rooms, and drop-

tem, and the air pocket has provided the space for expansion?

Ridgewood, N. J.

B. C. W.

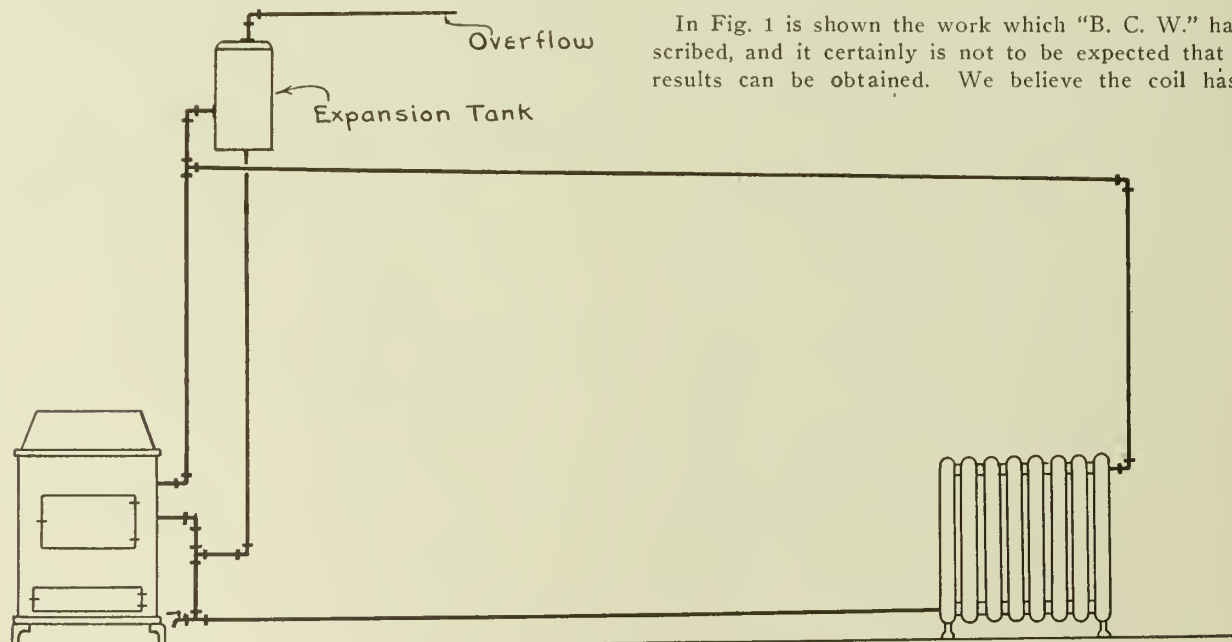


Fig. 2.

ping to floor supplying a 40 sq. ft. radiator. The (supposed) return pipe rising again to the ceiling and following the flow pipe back to the stove. The air valve

sufficient capacity for the work that it is expected to perform. It is estimated that a coil, when covered by fire, will need about 1 sq. ft. of heating surface for each 30

ft. of radiation to be heated; and as 24 inches of  $1\frac{1}{2}$  in. pipe in the coil which we are considering represents exactly 1 sq. ft. of surface, it will be clear that this is not enough for this job, as the radiator not only contains 40 sq. ft., but there is the long run of 100 ft. of pipe also to be taken into account.

We believe that "B. C. W." is correct concerning his belief that the air pocket may have acted as an expansion, and thus prevented disastrous results, for we do not see why all the elements of such a disaster are not present. Undoubtedly the presence of this air pocket prevents circulation also.

It should not be a difficult or expensive job to make this system perfectly safe, and to get good results from it. This may be accomplished by making connections similar to those shown in Fig. 2.

The higher the flow pipe can be carried above the stove, the stronger will be the circulation through the radiator. There can be no trouble from air if the work is connected as in Fig. 2, and there will be no need of an air vent, as all air that enters the piping and the radiator, will naturally rise to the expansion tank.

### IS THERE A SIMPLE TEST FOR WATER CONTAMINATION?

Editor "Domestic Engineering": Will you kindly tell me if there is any test which I can conduct myself in order to determine whether water has been contaminated by poisonous matters or remains fit for domestic purposes. Expert chemical analyses have proven rather expensive where at least a dozen samples are to be tested.

New York.

H. A. B.

The task of determining whether a certain water is sufficiently pure for people to drink, is not only a matter of scientific knowledge applied by an expert who thoroughly understands the subject, but upon it depends the health and the lives of human beings. We not only know of no simple short-cuts in the testing of water for contamination, but should not care to suggest the use of any tests that we might know, as this is a matter of too great importance to be handled otherwise than by an expert.

If there is any doubt whatever concerning the purity of the water we advise "H. A. B." by all means to have the water analyzed by an expert, even though an expert's fee must be paid for the service.

### WILL RAPID CIRCULATION OVERCOME THIS DIFFICULTY?

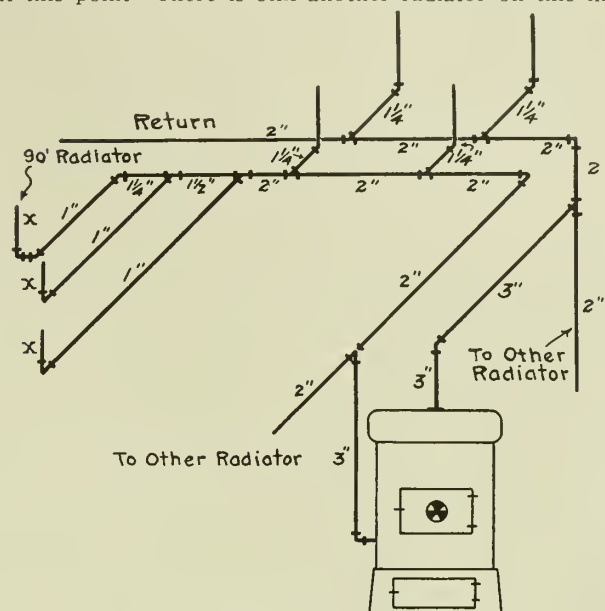
Editor "Domestic Engineering": The accompanying drawing shows a heating installation that does not work properly. The radiators are located 25 ft. above boiler. Pipes are on the outside wall of building, covered with air cell pipe covering. Cross indicates radiators that will not heat. Remaining part of job heats up O. K. Kindly advise whether rapid circulation would overcome this defect.

New Haven, Conn.

D. D.

Correspondent does not give sufficient information to allow us to answer him definitely. The sketch submitted shows his flow pipe marked "return," and the branches to radiators which will not heat are shown as returns. We take it that the flow pipes are same as returns, 1 in. to each of the three radiators. Sufficient attention has

not been paid to the area of the piping. Beginning with the 90 ft. radiator, the three branches to radiators are each 1 in. The valve area of these three radiators then, is  $3 \times .78 = 2.34$  sq. in., and the area of a  $1\frac{1}{2}$  in. pipe is 1.76 sq. in. The next radiator,  $1\frac{1}{4}$  in., adds 1.22 sq. in., with a total of 3.56 sq. in., and as the area of a 2 in. pipe is but 3.14 sq. in., the main is clearly insufficient in size at this point. There is still another radiator on this line,



Heating System that Fails to Work Right.

connected  $1\frac{1}{4}$  in., which brings the total required area to 4.78 sq. in., thus showing that a  $2\frac{1}{2}$  in. pipe, area 4.90 sq. in. should be used. Looking at this matter in another light, beginning at the boiler, the first two radiators supplied are  $1\frac{1}{4}$  in. Deducting the combined area of these from the area of the 2 in. main, leaves but .77 sq. in. The area of the next branch requires more than this, it being 1 in., and requiring .78 sq. in., thus showing that none of the radiators at the end of the line, which are supplied with 1 in., have sufficient circulation.

If this is an accelerated job, using a heat generator or similar device, the piping at the end of the line is wrong, as the  $1\frac{1}{2}$  in. main should be continued under the connection to the radiator, and an  $1\frac{1}{2}$  in. x 1 in. elbow used in supplying the connection to the radiator.

Again, if this is an open job, the 1 in. connection to the 90 ft. radiator at the end of the line, is not large enough. It should be at least  $1\frac{1}{2}$  in.

We believe the above will show the nature of the trouble as far as we are able to advise from the information given.

Oskaloosa, Iowa.—Homer Phelps has rented the business room next east of the Globe office, and has removed his plumbing office and fixtures to the new location.

Maquoketa, Iowa.—N. J. Rankin and son, Will, have purchased the Porter plumbing establishment on East Pleasant Street, and Mr. Porter has opened a shop on Niagara Street.

Plainesville, O.—Hawkins & Jepson, State Street plumbers, have leased new and larger quarters on St. Clair Street and will move about April 1st. The change is made on account of the growing business of the company. The present quarters on State Street will be retained by the company as a store room.



# Do Attractive Showrooms Justify Investment?

One Michigan Plumber Has Given Considerable Thought to This Question and His Solution Appears Herewith

SOMEONE has said that man himself is master of his own destiny. This statement is undoubtedly applicable to the master plumber who depends on his own efforts and judgment to further his business.

Up in the northern peninsula of Michigan, on the bleak and breezy south shore of Lake Superior, is the little city of Marquette, having a population of about 10,000, a hustling community and an up-to-date one. The fact that it is up-to-date can be partly charged to the activities of

a certain master plumber of that city, Herman Stensrud, who in the seventeen years that he has spent as a business man there, has demonstrated to the citizens that there is real value in good plumbing work and that he is the man who can deliver the goods

Mr. Stensrud is not an old man by any means, as his portrait will show. He has given a good deal of thought to the selling end of his business, with the result that he now has his own building on Front Street.



Herman Stensrud, Plumber

Stepping inside, one is immediately impressed with the business-like showroom display which greets the eye. There are steam and hot water boilers, electric washing machines, electric mangles and electric vacuum cleaners, and a great many of the smaller fixtures that appeal to the housewife as well as to the man with the pocketbook. On the north side of the room is a twenty-six foot illuminated show case, within which are displayed art brass and towel bars, soap and sponge holders, mirrors, tumblers, etc.

One of the noticeable things upon entering this showroom is the absence of the usual bathroom fixtures in the center of the floor or arranged along the walls. Mr. Stensrud has given considerable thought to the advantage of showing these fixtures as they are actually installed and has gone to a great deal of expense to fit up four bathrooms in an attractive style along the south side of the room, each bathroom being complete in itself and all of them being separated from the main showroom.

Each one of the bathrooms is brilliantly illuminated and decorated with handsome chandeliers, while large enameled iron flower pots containing fresh flowers are a part of the decoration of each.

The front bathroom, which is open and can be seen from the street, is finished in genuine white tile and presents a most beautiful appearance. In this room is a recessed porcelain enameled bathtub with water controlling valves through the wall, a vitreous lavatory and a concealed tank ventilated closet fitted with an absolutely sanitary white seat. Electric lights overhang the steel medicine cabinet and a handsome curtained shower bath hangs on the north side of the room. The fixtures and faucet handles in this room are mostly of china, which harmonizes with the white tiling, and does away with the usual nicked brass. This makes a most sanitary bathroom and is easily kept neat and clean.

The second bathroom has a hexagon tile floor and imitation tile scratch plaster side walls. This room is fitted with a massive "Old Roman" bathtub, a heavy pedestal lavatory with latest pattern combination faucets and shampoo cocks, a vitreous china tank closet, and steel recessed medicine cabinet. The towel bars and soap and sponge holders compare favorably with the rest of the furnishings. This room also presents a most modern and sanitary appearance.

The third room has oiled hardwood floors and Georgia pine wainscoting, with plaster walls. This room is fitted



Show Rooms of Herman Stensrud, Marquette, Michigan.

with a four-inch roll rim tub with Ideal waste and Bell supplies, a handsome wall lavatory and closet with golden oak finish. A medicine cabinet, towel bars, tumbler holders, etc., help to make this room beautiful.

The fourth room has imitation hardwood linoleum floor and baked enamel side walls. This room contains a five foot guaranteed bathtub with ordinary nickeled brass faucets and waste, a corner wall lavatory and low down water closet. The towel bars, tumbler holders and soap dishes in this room are of nickeled brass.

The idea in fitting the bathrooms up in this manner is to show the purchaser, whether he be of little means or a millionaire, what can be given him for a certain amount of money, thus enabling him to see how his bathroom will look when completed, this being a satisfaction to both the buyer and the plumber.

The office is located in the northeast corner of the show rooms. The side walls and fixtures are of solid oak, with paneled plate glass windows and doors. Desks and office fixtures are also of solid oak.

Mr. Stensrud believes in letting the public know what he can furnish them, and since he is some distance from a supply house, as well as from the manufacturers, he carries a considerable stock on hand.

He says that these display rooms have already demonstrated that to sell high grade plumbing fixtures it is necessary for the customer to see them and to be told of their merits. He believes first in selling a job and then considering the installation, which is a matter of labor and can be handled much more easily than the salesmanship end of the business.

Mr. Stensrud recently issued a very attractive booklet, containing a large number of photographs of his display rooms and shop, which has been circulated among his trade in



The Stensrud Building, 311-313 South Front Street, Marquette.



Office of  
Herman  
Stensrud.  
Note Busi-  
ness-like  
Arrangement.





Bathroom  
Number One.  
Tile Floor  
and Walls,  
Highest  
Grade  
Fixtures.

Marquette and for many miles around. This has been productive of much good in the few months in which he has had a chance to use it.

Mr. Stensrud's experience has simply strengthened the opinion of many men in the trade that to become the recognized headquarters for high-grade plumbing work where supply house displays are not available it is necessary to give much attention to the showroom.

Not only is it easier to show a customer what you expect to furnish him, but the securing of new customers by attractive displays is one of the noticeable results of such effort.

The modern department store has made display a fine art, and this has contributed immensely to its success as an institution.

The modern plumbing and fitting establishment can

profitably pattern after such concerns, insofar as the attractiveness of the goods will allow.

The opportunity exists in every community where a plumbing or heating business can hope to prosper, for a clean, attractive display of the equipment that the customer should own. Much of the front room of almost any shop can be converted into an attractive display space if a little thought and study is given to it.

There is no doubt, also, that the use of separate bathroom displays has its effect on the buyer, who can thereby better judge of the general effect obtained, as well as see the kind of ware he is buying.

It is not possible for every plumber to fit up his place of business as attractively as has Mr. Stensrud, but every shop has its display possibilities, and there is little excuse for the presence of a lot of old drain fittings and dis-



Bathroom  
Number Two.  
Tile Floor,  
Walls in  
Scratched  
Plaster,  
Best Grade  
Fixtures.



Bathroom  
Number Three.  
Oiled Floors,  
Hard Pine  
Finish,  
Plaster Walls,  
Good Grade  
Fixtures.

carded brass goods in the front window and uncanted sinks in front of the door.

The buyer is interested in the attractive fixtures in their proper places, embellished with the accessories that he believes he should own. But to purchase these he must be reminded of them, and the display, before his eyes, is the silent reminder.

In fitting up such a display room, it is well to remember that the customer likes to see the fixtures in actual working order. He prefers to open a hot water faucet and actually see and feel the heat of the water. And if a gas water heater is there, he is apt to order it.

The movable displays, such as washing machines, pneumatic water systems and vacuum cleaners, should wherever possible, be connected up with power, that they may be demonstrated to the best advantage.

When an attractive display room has been provided, only one part of the work has been done. Not every possible customer comes voluntarily into your store.

Advertising the display, through the newspapers, by circulars and booklets, and by personal contact with prospective customers, is necessary to the greatest good of such a plan.

Mr. Stensrud has not stopped at simply fitting up his display rooms, but has made them known to every man, woman and child in that part of Michigan. He has gotten the public to talk about his enterprise, and he is reaping results that are visible in his bank account.

What Mr. Stensrud has been able to do in a town of only ten thousand, **you** can do in your own community. Perhaps your conditions are better than his—at any rate, why not give such a plan a tryout?



Bathroom  
Number Four.  
Imitation  
Hardwood  
Floor (Lino-  
leum), Steel,  
Baked Enamel  
Walls in  
Imitation Tile,  
Good Grade  
Fixtures.



# Increased Efficiency and the Motor Truck

The Use of the Motor Truck Among Plumbing and Heating Contractors, Manufacturers and Jobbers, is Rapidly Increasing

**T**HERE are sound reasons for the man who seeks to increase his business and for the man who even hopes to retain his standing in this way, to look into the matter of delivery with care. These several reasons include promptness in making deliveries to customers and freight depots, in saving in cost of operation, and in avoiding delays that are so often encountered with a rush of business. The very nature of the industry makes the hauling of plumbing supplies and kindred lines one of bulk and weight above the ordinary. In order to make any real progress in the matter of delivery, not alone to customers, but to and from the stations, there must be promptness and a capacity for heavy loads.

The conditions of the weather have likewise much to do with delays that are often costly to the operator, and to avoid any loss of time should be a matter for very

of operation, the greater speed made in all kinds of weather, have combined to make the truck the ideal means of delivery for the heating and plumbing trade. Comparison has been made and the truck has outdistanced the horse vehicle several times in the above respects, and this has particular significance where there are long hauls to be made.

As has been noted with some other industries, the short hauls have not proven so notable in favor of the truck. The cost, time and general results have been, we might say, a trifle in favor of the horse vehicle. But the real tests must come where there are large loads, long hauls and speed demanded. In these there has never been any comparison between the two methods, the motor far outstripping the horse. It does not require additional men, and often fewer men can do the work with



The New Up-to-Date Alco Truck, Just Built to Order for Weil Bros., Jobbers, of Chicago.



The New Large Kissel Truck, Just Purchased by the Western Plumbing Supply Co., of Chicago.

careful thought. One notes with satisfaction that the use of the motor truck is fast finding more general use with the heating and plumbing fraternity and the supply men, and that there has been sufficient proof given to make the newer method of transportation satisfactory.

The use of the truck among manufacturers and jobbers in any industry has been of slow development. There has not been any great rush to adopt this means of delivery, and the increase in the use of the motor truck now is due solely to care and ample tests. However, the fact that such tests, for the greater part, have proven satisfactory is the best argument why there is merit in the truck for many industries. With the plumbing and heating industries the same care has been exercised by all those who have thus far adopted the truck as a means of transportation.

Opinions given by leading manufacturers and dealers, and by many of the plumbers are such as to convince the dubious mind of the satisfaction that has been noted with the adoption of the motor truck. The reasons, as expressed by these users, after several years' careful study of the matter, are summed up in a few words. Owing to the increased pulling capacity of the truck over that of horse power, the increased loading limit, the reduced cost

a motor truck, and accomplish far more than with the horse-drawn vehicle.

It must be remembered that within a few years, or we might say within the past year, there has been a decided advance made by manufacturers of motor trucks in their operation. Not only has the cost of operation been lowered with an improved vehicle, but the improved methods of manufacture have added to the durability of the truck, and consequently the cost of repairs has been minimized and a higher standard of efficiency attained. The speed has been increased, the running gears strengthened, and the general wearing qualities of the cars made superior to the older models.

The improvement in the cars has been made necessary from the fact that complaints were of frequent occurrence in the past, and the success of the motor truck as a means of rapid and satisfactory transportation, depended upon the improvements that were actually made. Complaints were secured, carefully weighed and noted and the evils that were the fundamental causes of the dissatisfaction eradicated. In this way was it possible to improve the cars, and to also increase their popularity. Records prove that there has been a vast increase in the use of the motor truck for business, and the number of

industries using them are so general as to cover every trade in the country.

The plumbing trade has been gradually awakening to the fact that there is virtue in this means of delivery. The number of users in the trade has as yet been lower than in some others, and the reason has been due to the lack of sufficient faith in the ability of the motor trucks to properly perform their obligations. One large firm in a big city now operates seven large trucks, and within the past three years has been keeping tests of the work accomplished with the use of the truck. These records have been ample to convince them of the desirability of the truck for their industry. This is further proven from the fact that all of their future delivery equipment will be motor trucks.

There are a number of cars made that are in a special way adaptable to the heating and plumbing trade. Naturally there is demanded, for the firms handling heavy materials, a durable car. These cars are made with a capacity from one to four tons, and there is no reasonable load that cannot be carried by the motor truck. At least one-third in time actually saved has been shown with the use of the truck with a heavy load. On long deliveries it is possible to make a delivery a day and return in time for a reload for an early morning run. This has been impossible with the horse vehicle.

For light work and rapid runs, there has been a material advance made with the adoption of the lighter truck. Hurry up calls and time saved on trips, are of the greatest moment to the heating and plumbing man. He understands the real value of the matter of time, and there has been a greater desire to lessen the cost of operation with his delivery department. In delivering material for a new building there is often a greater saving in time demanded than is possible with the horse vehicle. The motor car has proven the method and has saved many times its cost to the user.

It matters not as to whether the user of the motor truck is a large manufacturer, a jobber, or a retail or jobbing plumber. If he is a heating contractor, there have been many times where he can find the motor truck a material help to him. The motor car is always ready for instant service. It does not demand one-half the care and time that a horse requires, and the other points in its favor are ample to make it a much wider favorite with the trade.

The best recommendation that could be given the truck with the trade is the experience that others have had after several years of hard service. If there has been a test made that has proven its merit, then this should prove the best possible argument. If other lines of industry have found it of increased value, covering its several demands in a way that have proven amply adequate, then there should be little hesitation on the part of anyone from adopting it, and thus reducing operating costs and making possible increased efficiency.

At the Motor Truck Show held at the Chicago Coliseum last week the trade had an opportunity to personally inspect cars that were designed for almost any possible use to which the jobber, manufacturer or plumbing and heating contractor could put them. Big and little trucks for every purpose were there.

Among the cars exhibited were two intended for Chicago jobbers, one of these was a large Alco truck in three and a half-ton size for Weil Brothers, Chicago. The body of this truck was built to order by Jacob Press & Sons, Chicago, especially for the use of this plumbing supply house. The illustration herewith shows one of the trucks already in use by Weil Brothers and the latest

addition to their equipment will make a total of six Alco trucks now in use by this firm.

A large Kissel truck was also shown on the floor, lettered and ready for delivery to the Western Plumbing Supply Co., Chicago. This is a three-ton truck and was sold by the Chicago office of the Kissel Car Co.

The illustration herewith gives an idea of its size and adaptation for the particular work to which it is to be put.

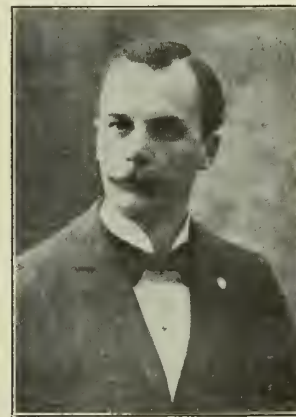
#### SPONSELLER NEW PRESIDENT OHIO PLUMBERS.

As we go to press, telegraphic word comes of the election of the officers of the Ohio Master Plumbers' Association at the Toledo Convention, Thursday afternoon, February 20th.

The new president is F. W. Sponseller, of Canton, who



F. W. Sponseller, of Canton,  
Newly Elected President  
Ohio Association.



John F. Drees, of Cleveland,  
Retiring President, Ohio  
Association, now State  
Vice-President.

has been the president of the Canton local for some time. James A. Wood, of Toledo, formerly president of the Toledo local, was elected vice-president. Eb. Ellen, of Cleveland, who has so ably acted as secretary-treasurer, was re-elected. John F. Drees, of Cleveland, the retiring president, was honored as national state vice-president.

A full report of the proceedings of the three days' session, fully illustrated, will appear in next week's issue. Look for it.

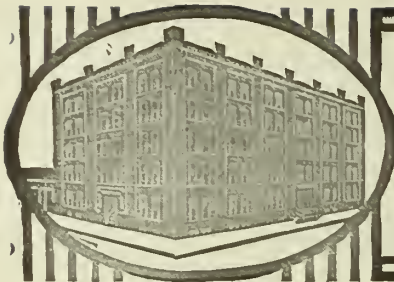
#### ANNUAL CONVENTION OF THE INDIANA MASTER PLUMBERS' ASSOCIATION.

The seventeenth annual convention of the Indiana State Association of Master Plumbers will be held in Indianapolis next month. This promises to be one of the largest attended conventions held by the state organization in recent years, and no stones will be left unturned to make it the most beneficial, both from an educational and moral standpoint.

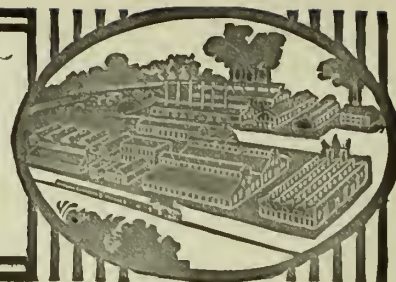
A new feature will be added to the convention in the way of an exhibit hall, which will be under the jurisdiction of the state officers; and the exhibit space will be sold to manufacturers who will give practical demonstrations of new appliances for the benefit of the delegates.

The exhibit hall will, in all probability, be in the same building as the convention hall, and will be open to the delegates on Monday afternoon, March 10th, at 1:30 and remain open until 11 o'clock that evening, and from 6 to 8 o'clock on Wednesday evening, and closed at all times when the convention is in session.





## News of Interest Among the Wholesalers and Manufacturers



### MEMBERS OF "BATHTUB TRUST" FOUND GUILTY AT DETROIT.

In the criminal prosecution of the members of the so-called "Bathtub Trust" in the Federal District Court at Detroit Judge Clarence W. Sessions on February 15th imposed fines ranging from \$1 to \$10,000 on the fourteen individuals and thirteen corporations who were defendants, and who were the day before convicted of criminal conspiracy under the Sherman Act.

The total amount of fines assessed was \$51,007, which must be paid on or before March 1st. In case of the fines assessed against individuals not being paid by that time, a sentence of not to exceed six months for each in the Detroit house of correction would be imposed.

#### Sentences as Pronounced.

The sentences follow:

L. Wolff Manufacturing Company, Chicago, \$5,000.

Standard Sanitary Manufacturing Company, of Pittsburgh, \$10,000.

Barnes Manufacturing Company, of Mansfield, O., \$1,000.

J. L. Mott Iron Works, of New York, \$5,000.

McVay & Walker, Braddock, Pa., \$500.

National Sanitary Manufacturing Company, Salem, O., \$1,000.

Union Sanitary Manufacturing Company, of Noblesville, Ind., \$1,500.

A. Weiskittel & Son Company, of Baltimore, \$1,500.

Wheeling Enameled Iron Company, of Wheeling, W. Va., \$500.

Humphries Manufacturing Company, of Mansfield, O., now in the receiver's hands, \$1.

McCrum-Howell Company, of New York, in receivers' hands, \$1.

United States Sanitary Manufacturing Company, of Pittsburgh, which pleaded nolle contendere, \$500.

Day-Ward Company, of Warren, O., in hands of creditors, \$1.

Individual defendant's fines: Theodore Ahrens, E. L. Dawes and Francis J. Torrance, officers of the Standard Sanitary Manufacturing Company, \$5,000 each.

T. R. Barnes, of the Barnes Manufacturing Company, \$500.

Jesse T. Duryea, of New York, \$1,000.

Frank G. Borden, of the National Sanitary Manufacturing Company, \$1.

A. Weiskittel, of A. Weiskittel & Son Company, \$1,000.  
Herman Hoelscher, of the L. Wolff Manufacturing Company, \$5,000.

Lloyd G. McCrum, of the McCrum-Howell Company, \$1.

Howard T. Gates, also of the McCrum-Howell Company, \$500.

J. E. Wright, of the Wheeling Enameled Iron Company, \$500.

A. G. Ward, of the Day-Ward Company, of Warren, O., \$1.

A. H. Cline, Jr., of the U. S. Sanitary Manufacturing Company, \$1,000.

J. W. Arrott, also of the United States Sanitary Manufacturing Company, \$1.

#### Statement by Theodore Ahrens.

In an authorized interview Theodore Ahrens, of Louisville, Ky., president of the Standard Sanitary Mfg. Co., one of the defendants, says:

"While we are disappointed at the outcome of the trial at Detroit, and especially at the excessive fines imposed by the court on the Standard Sanitary Manufacturing Company and its officers, we are glad the strain is over.

"We want to reiterate that we had no intention at any time of violating the laws of this country; that we acted under the best legal advice obtainable and that we therefore do not feel that we have committed any offense for which we ought to apologize or of which we ought to feel ashamed. It has been urged that the Standard Sanitary Manufacturing Company is a trust, but we would like to call attention to the fact that under the plan we proposed, and which the Government forced us to abandon, we attempted to protect both the small manufacturer and the small jobber and arrange it so that they had an even chance to do business with their larger and stronger competitors. If the object of the Government in enforcing the Sherman law is to protect the weaker and smaller concerns against the stronger ones, they have certainly in this instance accomplished directly the opposite effect. It was shown by the evidence in this case that we did not advance prices.

"As far as my own case is concerned, the public will, I hope, remember that Judge Angell, in the first trial, was ready to discharge me for lack of evidence, but not wishing to desert our associates and let them bear the brunt of it alone, Mr. Dawes, Mr. Duryea and I decided voluntarily to remain in the case to the end. We do not regret that we have done so.

"We have not yet decided whether we will appeal, but have advised the smaller manufacturers, against whom only light fines were imposed, not to appeal their cases, as the expense of this litigation has been very heavy and has become a serious burden to some of the concerns involved."

#### Comment by J. L. Sullwold.

In commenting upon the decision in a St. Paul paper, J. L. Sullwold, president of the Western Supply Co., of that city, says: "It shows that the government is doing something with these illegal combinations. I was a little in doubt as to the outcome of the case as I feared a disagreement. It will mean a great deal to all the plumbing supply trade. It will undoubtedly mean a reduction in cost to the purchaser of from 20 to 40 per cent."

**AUGUST FROELICH PASSES AWAY.**

August Froelich, one of the members and the founders of the plumbing supply firm of Froelich Bros., 142 North Seventh street, Philadelphia, Pa., died at his home in that city on Tuesday, February 11th, in his 56th year.

**WILL MANUFACTURE HOT WATER HEATERS.**

The Economy Heater Co., of Chicago, has been incorporated with a capital of \$10,000 to manufacture hot water heaters. The incorporators are: A. B. Boughan, F. Getz and Robert W. Dunn.

**WILL DEAL IN PLUMBING AND STEAM FITTING SPECIALTIES.**

The Plumbing Sales Co., of Chicago, has been incorporated with a capital of \$15,000 to deal in plumbing and steamfitting specialties. The incorporators are: William A. McGuire, Sidney J. Frank and John Fitzsimmons.

**WILL MANUFACTURE HOT WATER HEATERS.**

The Beauvais Water Heater Co., of Holyoke, Mass., has been incorporated with a capital of \$200,000, to manufacture hot water heaters. The officers of the new company are: President, George C. Roberts; treasurer, John B. Beauvais; directors: John H. Beauvais and Ernest E. Beauvais.

**HUDSON BOILER MFG. CO. TAKES OVER ABENDROTH BROS. BRANCH.**

Abendroth Bros., Portchester, N. Y., have discontinued their branch office on Beekman street, New York City, and this business will hereafter be taken care of by the Hudson Boiler Mfg. Co., Aeolian Building, on 42nd street. A. S. Grant will have charge of the stove and range department and John Kane will look after the boiler end of the business.

**BRUNELLE BOILER CO'S. BUSINESS SOLD TO CANADIAN SYNDICATE.**

The business of the Brunelle Boiler Co., of 10 Coburn avenue, Worcester, Mass., manufacturers of the Brunelle steam heater, has been sold to a Canadian syndicate and will be removed to Three Rivers, Quebec. The Canadian concern is capitalized for \$100,000 and the officers are: Joseph A. Jutras, president; John Boisvin, vice-president; Arthur Heroux, secretary, treasurer and general manager.

**LEIGHTON SUPPLY CO. HOLDS ANNUAL MEETING.**

The annual meeting of the Leighton Supply Co. was held at Fort Dodge, Ia., on February 11th, at which all of the old officers and directors were re-elected. A satisfactory cash dividend was declared and the balance of the profits were carried to surplus.

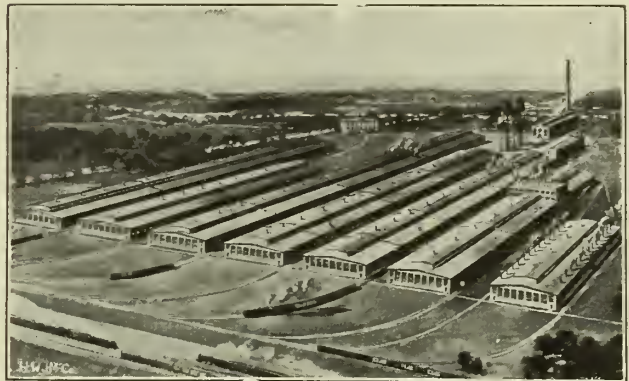
The business of the preceding year was declared to be in every way satisfactory and prospects for 1913 appear to be bright. The company now has eight men covering northwestern Iowa, going as far east as Waterloo and as far south as Des Moines. The officers of the company are: President, George Schnurr; vice-president, A. C. Heath; secretary and treasurer, E. I. Leighton.

**ANNUAL MEETING OF NATIONAL SANITARY MFG. CO.**

The stockholders of the National Sanitary Mfg. Co., of Salem, Ohio, held their adjourned annual meeting February 17th and elected the following directors: F. G. Borden, I. G. Dimond, Frank C. Moff, E. E. Hanna, J. C. Jobe, S. J. Shanabrough and S. Grove, jr. At a special meeting held after the election, an issue of \$125,000 in bonds was authorized to provide the necessary money to increase the production of the plant by the installation of modern equipment for the handling of the product. The officers reported a very satisfactory volume of business for the year just closed and a most encouraging prospect for 1913.

**NEW PLANT OF H. W. JOHNS-MANVILLE CO. NOW IN OPERATION.**

The completion of the new plant of the H. W. Johns-Manville Co., at Manville, N. J., marks another important chapter in the history of this enterprising concern. Beginning with the consolidation of the H. W. Johns Mfg. Co. and the Manville Covering Co., in 1901, the H. W. Johns-Manville Co. has grown by leaps and bounds until today it has branch houses in practically every city of prominence in the United States and Canada, and representatives in almost all foreign countries. Its manufac-



H. W. Johns-Manville Co's. New Plant, at Manville, N. J.

turing plants are located in Brooklyn, N. Y.; Milwaukee and West Milwaukee, Wis.; Hartford, Conn.; Nashua, N. H.; Lockport, N. Y.; Jersey City, N. J.; and an asphalt refinery at South Amboy, N. J. Its asbestos mines at Danville, P. Q., Canada, are the largest in existence, and acknowledged to produce an exceedingly fine grade of asbestos.

The new Manville plant consists of nine buildings, which, together with their products, are classified as follows: A—Textile and packing. B—Rubber plant, electrical specialties and printing department. C—Pipe coverings. D—Paper mill. E—Magnesia. F—Roofing. G—Mastic and waterproofing. H—Roofing coatings, power plant and pump house. These buildings represent the most advanced ideas in fireproof construction, being of brick, steel and concrete, with roofs of J-M asbestos roofing. They are planned not only for safety but to afford the best operating conditions for the employees. The "daylight" form of construction which is employed throughout permits a flood of light to enter the buildings through large triple-unit windows placed close together. The walls, ceilings and uprights are coated with J-M fireproof cold water paint. Artificial illumination is provided in the form of



J-M linolite lamps and Frink reflectors. The hygienic conditions of this plant are ideal. Healthful ventilation is furnished by means of steel ventilating sash which provides a constant supply of fresh air without causing drafts. Owing to the judicious arrangement of the machinery, there is an entire absence of the crowding and confusion which, in many factories, serves to hamper the operators in their work.

Each building has an average length of 1,000 feet, and is a separate factory in itself capable of being operated as an independent unit without relation to the other buildings in the group. The total combined floor area of all the buildings is about 1,000,000 square feet. The buildings are heated by exhaust steam conveyed underground from the power plant through pipes laid in J-M sectional conduit.

The new plant is located on a picturesque tract of 320 acres, divided by the Raritan river, in the town formerly known as Findern, N. J., but which name was changed to "Manville." The company's private railroad system, comprising 5 miles of tracks, connects directly with the Central Railroad of New Jersey, the Lehigh Valley and the Philadelphia & Reading railroads, thereby insuring excellent shipping facilities.

About 3,000 men will be employed at this new plant, making a total of about 7,000 who are now employed by this company.



E. J. Barrick, formerly of Ruud Mfg. Co.'s. Kansas City office, has recently become connected with the Chicago office of the Pittsburg Water Heater Co., in the capacity of assistant manager.

J. C. Bowery, formerly representative for the Pittsburg Water Heater Co., at Louisville, Ky., has recently been promoted to manager of that company's office at 1305 G street, N. W., Washington, D. C. Edgar Morris has been installed at Washington as assistant to Mr. Bowery.

R. N. Trane, of the Trane Company, La Crosse, Wis., was in Chicago this week calling on some of his friends in the heating trade. On his way to Chicago he stopped at Madison, Milwaukee and Racine. He reported the outlook bright for a good spring season in the heating trade.

E. F. Glore, formerly manager of the Philadelphia office of the Richardson & Boynton Co., has been made general sales manager of the company, with headquarters in New York City. He has been succeeded at Philadelphia by Maxwell Gilbert, formerly city salesman of the same company.

T. E. O'Brien, vice-president and manager of the Leader Iron Works of Decatur, Ill., passed through Chicago on Tuesday of this week on his way to the eastern headquarters of the company at Owego, N. Y. He will spend several weeks in the eastern territory and with the New York City sales office at 15 William street. He will spend a few days at Detroit, Sarnia and Toronto also.

E. C. Lillie, of Denver, Col., the well-known manufacturers' representative in Colorado for heating equipment, was a Chicago visitor this week. He confidentially mentioned to "Domestic Engineering" that he must hurry home to look after the christening of his first granddaughter, whose arrival had occurred on February 15,

during his absence on a business trip in the East.

G. L. Stephenson, master plumber, 842 Sherbrooke street, Winnipeg, called at the office of "Domestic Engineering" last week. He and Mrs. Stephenson are taking a few weeks' vacation from the worries of the plumbing business and in addition to a few days spent in Chicago expect to visit Washington, Philadelphia and New York, as well as Montreal, before returning home. Mr. Stephenson reports a prosperous year's business just closed and states that the prospects for 1913 were never brighter. He is afraid that he will have to cut short a portion of his trip in order to look after contract work that is already projected.

Claude W. B. Cornelius, president of the Cornelius-Hogg Co., Inc., of San Francisco, manufacturers of the "Co-Ho" line of plumbing specialties, was a Chicago visitor this week and called at the office of "Domestic Engineering." He is making a business trip to other eastern points, visiting some of the factories, and will spend some days in New York before returning to the coast. Mr. Cornelius states that his firm, though comparatively young in the business, did a much greater volume in 1912 than they had expected at the beginning of the year. He believes that the opportunities in the west are excellent and that the use of plumbing goods is not decreasing so far as he is able to determine. The prospective opening of the Panama Canal will undoubtedly help business and has already made itself felt in the increased demand for their goods.

#### TWO BRASS SALESMEN IN CALIFORNIA.

H. F. Sheridan, Pacific coast representative for the Central Brass Mfg. Co., of Cleveland, O., and E. M. Brown, Pacific coast representative for the United Brass Mfg. Co., of Cleveland, O., recently purchased machines



Two Brass Goods Salesmen in California.

in which to call on the trade in California. Mr. Brown selected a Krit and Mr. Sheridan an American Roadster. A few days ago they met in San Francisco, on which occasion the accompanying picture was taken in Mr. Brown's car. Both gentlemen report business conditions on the coast as being exceedingly good on account of the extensive preparations being made for the exposition in 1915.

Wilmington, Del.—Harry F. Mellon, a prominent master plumber of this city and for several years a member of the board of directors of the National Association of Master Plumbers, is receiving congratulations from his friends on his choice of a Christmas gift for his talented children. The gift in question was a prize "Shetland" Pony and cart, and the attractive vehicle with its youthful cargo, is seen frequently on the streets of Wilmington. It has been the subject of pleasant comment.

### ATTRACTIVE WATER SYSTEM CIRCULAR.

The National Steel Tank & Manufacturing Co., Bradford, Illinois, has just issued a most attractive circular in which is described their electric pneumatic water system with automatic control. The illustrations are of a high order and the information given will aid the dealer in selling such plants. A copy of this circular will be gladly mailed on request, upon mention of Domestic Engineering.

### NEW BOOKLET BY CAHILL IRON WORKS.

The Cahill Iron Works, Chattanooga, Tenn., have just issued a new sixteen-page booklet, beautifully printed in colors, entitled "Southern Beauty Enameled Ware." Illustrated within its pages are the "Tennessee" and "Chattanooga" high grade sinks and the "Pacific" sink and laundry tray combinations, the original designs of which, as well as others illustrated therein, have been known to the trade for quite a while. Some of the illustrations, however, are new and appear for the first time in this booklet. This booklet is of convenient size to enclose in an ordinary business envelope and has a space at the bottom for imprinting purposes. A copy will be mailed to any master plumber requesting it, upon mention of "Domestic Engineering."

### KELLY BRASS WORKS ISSUES 1913 CATALOGUE.

The Kelly Brass Works, 225-231 W. Illinois street, Chicago, manufacturer of automatic air valves and specialties, is sending out to the trade some interesting air valve literature in the form of a new catalogue. The front and back covers of the catalogue contain the same design, which is shown in miniature in this column. In describing "Class-A-Kelly" valves on page 4 of the catalogue, the



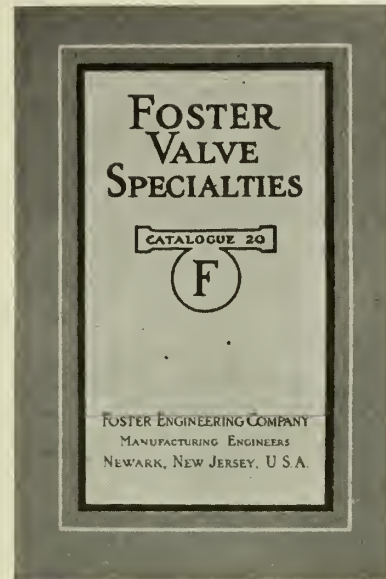
Cover Design of Kelly Brass Works New Catalogue.

manufacturers state, in part: "By unscrewing the plug at the bottom of the valve all the interior parts can be removed, cleaned and repaired, thus assuring the perfect operation of the valve at all times. The expansion post is made of the very best material and is of tubular form, loosely mounted on a brass rod extending through its entire length, thereby preventing the expansion post from buckling or bending and keeping it in perfect alignment.

Any water of condensation in the valve will be drained back into the radiator through the drain tube." If your copy of this catalogue has not reached you, it will be sent upon request to the Kelly Brass Works at the address given above, mentioning "Domestic Engineering."

### ISSUES INSTRUCTIVE CATALOGUE.

"Catalogue 20 F" is the title of a new book containing 114 pages, recently brought out by the Foster Engineering Co., Newark, N. J., manufacturers of pressure regulating and reducing valves and kindred engineering specialties. The accompanying illustration shows the front cover of this catalogue. The frontispiece is a half-tone engraving of the main office and works of the company.



Front Cover Design of Foster Engineering Co's. New Catalogue.

The catalogue is unusually well written so that the reader can readily understand its contents. The products of the company are classified in a unique manner, each being illustrated and described in a separate division. One of the most interesting of these divisions is devoted to the Foster low pressure regulators, class "Q" and "QH," which are very well known to the heating trade. The back part of the booklet contains a price list of parts for Foster valves, the Foster code, and several pages of general useful information for the plumber and fitter. A copy of this exceptionally valuable catalogue can be obtained from the manufacturers upon application, mentioning "Domestic Engineering."

### NEW JERSEY JOBBER IS ENTHUSIASTIC ADVERTISER.

The plumbing supply jobbers doing comparatively local business have never been known as strenuous advertisers. The benefit to be gotten from advertising to the trade surrounding a given jobbing center is undoubtedly worth the effort. It remained for William S. Roe, 17-19 Mechanic street, Newark, N. J., to come out with a number of very attractive folders, which he has been sending to the plumbing trade in that vicinity, calling attention to his new catalogue and showing on the inside an attractive half-tone of this catalogue held in a customer's hand. The results of this advertising, Mr. Roe believes, will be felt in the season's business.





### RAILROADS BUYING EQUIPMENT.

A significant feature of the iron and steel market this week has been the heavy buying of locomotives by the leading trunk line. The Pennsylvania Railroad has already ordered 100 locomotives from outside sources, and its Altoona shops have taxed their capacity in building both locomotives and cars. The Baltimore and Ohio R. R. is in the market for 100 heavy power locomotives, and the Chesapeake & Ohio has likewise signified its intention of buying a large amount of equipment. Car orders have been especially heavy. Pig iron buying has not been large, but the fact that prices have not weakened, except in a few special instances, is worthy of note. More pig iron is now being produced than consumed, the direct opposite to the conditions four months ago. Lower prices for coke are stimulating the blowing in of new stacks, but should these blow in it would seem that prices of iron must go lower. There is no large accumulation, and at present quotations there is no incentive for manufacturers of iron to make more than can be sold around present figures. No one is going to accumulate any large stock in these times. A potent reason why consumers are not buying is the fear of the general situation. With an upheaval in Mexico, which threatens to entangle this country, and Europe hoarding gold because of the Balkan war, merchants and manufacturers are disposed to go as slow as possible.

Quotations are as follows:

No. 2X Northern foundry, New York, \$18.00 to \$18.25.

No. 2 Plain Northern foundry, New York, \$17.75 to \$18.00.

No. 2 Southern foundry, Cincinnati, \$16.50 to \$17.00.

No. 2 Northern foundry, Chicago, \$18.00

No. 2 Southern foundry, Birmingham, \$13.50 to \$14.00.

### A BUYING MOVEMENT IN COPPER.

The producers of copper again lowered the quotation this week and on Friday it was possible to buy electrolytic at 15 cents. This is a level at which consumers have signified their intention of buying, and on that date some fairly large sales were made for March and April delivery. Whether the quotation will go any lower or not is a question, but the present price seems to be an eminently fair one, and it is the general belief that the buying movement will go further and a great deal of copper sold at around this level. European stocks are low and, while interests there are not disposed to buy, they will be compelled to in the very near future. A fairly active business may be expected for the next few weeks, and, while declines from even this level would not be impossible, any large decline is improbable, and it is believed the metal will seek a higher level before summer.

### LEAD.

The market is steady and without change. There is a fair amount of buying for immediate consumption. Quotations are as follows: New York, 4.35 cents; St. Louis, 4.20.

### SPELTER.

The market is steady and consumers are taking fair quantities, particularly the wire mills. In New York spelter is selling at 6.45 cents and in St. Louis at 6.30 cents.



February 24 and 25, 1913.—Annual convention of the Missouri State Association of Master Plumbers at Joplin, Mo., with headquarters at the Connors Hotel. The officers of the association are: President, Edward C. C. Reisel, St. Louis, Mo.; first vice-president, G. A. Wood, Springfield, Mo.; second vice-president, H. B. Schulte, Joplin, Mo.; treasurer, Jas. P. Carroll, St. Louis, Mo.; secretary, C. L. Smith, Kansas City, Mo.

February 26, 1913.—Winter meeting of the Central Supply Association, at the Hotel Sherman, Chicago. The secretary of the association is Paul Blatchford, 1915 City Hall Square Bldg., Chicago.

March 10 and 11, 1913.—The twenty-second annual convention of the Kansas Master Plumbers' Association, at Kansas City, Kan., with headquarters at the Hotel Grand. The officers of the association are: President, A. P. Elder, Ottawa; vice-president, W. S. P. Gill, Hutchinson; treasurer, F. H. Bowers, Emporia; secretary, E. D. Draper, 644 State Avenue, Kansas City, Kans.

March 10, 11 and 12, 1913.—Seventeenth annual convention of the Indiana State Association of Master Plumbers, at Indianapolis, Ind. The officers of the association are: Wm. J. Woolley, Evansville, president; H. H. Highlands, Gary, vice-president; A. E. Werkhoff, LaFayette, secretary-treasurer.

March 11 and 12, 1913.—Annual convention of the New York State Master Plumbers' Association at Buffalo, N. Y., with headquarters at Hotel Iroquois. The officers of the association are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, 161 Columbus avenue, New York City; executive clerk, John E. Dugan, 4 Monroe street, Albany, N. Y.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: President, George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 3, 1913.—Annual convention of the Massachusetts State Association of Master Plumbers, at Boston, Mass. The convention will be held at the Hayward assembly rooms. The officers of the association are: James S. Cassidy, Cambridge, president; Robert Robertson, Beverly, vice-president; John J. Vogel, Boston, secretary; O. S. Kendall, Worcester, treasurer; Richard J. Welch, Lowell, chairman executive board.

April 14 and 15, 1913.—First annual meeting of the National Pipe and Supplies Association, at the Hotel Sherman, Chicago. The general secretary of the association is George D. McIlvaine, of Pittsburgh, Pa.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at

Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

May 20, 21 and 22, 1913.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky. The officers of the society are: President, Thomas J. Claffy, City Hall, Chicago; vice-presidents, Dr. H. K. Beatty, Pittsburgh, Pa.; W. J. Yackley, Dayton, O., Charles M. McHugh, Cedar Rapids, Ia., R. H. Ellithorpe, Fresno, Cal., Jas. E. McGrath, Louisville, Ky.; secretary and treasurer, L. J. Lawler, Pittsburgh, Pa.

May 27, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind. The officers of the association are President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

June 5, 6 and 7, 1913.—Annual convention of the Colorado State Association of Master Plumbers, at Colorado Springs, with headquarters at the Antlers hotel. The meetings will be held in the chamber of commerce auditorium. The officers of the association are: N. W. Haas, Colorado Springs, president; J. C. St. John, Colorado Springs, vice-president; Peter Menzies, Denver, secretary.

June 23, 24 and 25, 1913.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gomers, 260 West Broadway, New York City.

#### MEETING OF FOX RIVER VALLEY MASTER PLUMBERS.

The Fox River Valley Benevolent and Social Club, composed of master plumbers belonging to the state association and engaged in business in the Fox River Valley, held its regular meeting Tuesday, Feb. 11, at Oshkosh, Wis. The meeting was called to order shortly after 3 o'clock, with a large attendance present. Very interesting talks were given by former State President Geo. F. Reeke and others, and the secretary read the new orders on sanitation that were adopted by the State Industrial Commission January 16, 1913, to go into effect February 20, 1913. This report, and especially that pertaining to plumbing installation, is very important to the plumbing fraternity, and every master plumber in the state of Wis-

consin ought to acquaint himself with the new rulings. Copies may be had by addressing the State Industrial Commission, Madison, Wis., and asking for "Bulletin on Sanitation."

The Oshkosh plumbers gave the visiting plumbers a royal reception, and when they departed for their respective homes they all expressed themselves as being more than pleased, and that the few hours thus spent in a social way help to promote a friendly feeling which should exist in every local, or district organization.

The next meeting of the club will be held the first Tuesday in April, at Fond du Lac. The election of officers will take place at that meeting.

The present officers of the club are: President, Al Delforge, Green Bay; vice-president, J. Geo. Mueller, Oshkosh; secretary, John P. McCoy, Fond du Lac; treasurer, W. S. Patterson, Appleton.

#### FEBRUARY MEETING OF MASSACHUSETTS CHAPTER A. S. H. & V. E.

The regular February meeting of the Massachusetts Chapter of the American Society of Heating and Ventilating Engineers was held at Boston last week. There were nine members present—Messrs. Morrison, Myrick, Smallman, Franklin, McKenna, Cooper, and three guests.

The subject of a law governing motion picture theaters was under consideration and was laid on the table until the March meeting, as this is an important matter.

The legislative committee, Messrs. Cooper, Myrick, Franklin and McKenna, after conferring with others interested, drafted a bill which is entered as "Senate 115, Relative to the making and awarding of contracts by counties, cities, towns and commissions thereof," for the separation of the heating and ventilating contracts from the general or other contracts, and the adjourned hearing is set for February 18th, before the municipal finance committee.

#### DELEGATES ELECTED BY THE SYRACUSE ASSOCIATION.

At the meeting of the Master Plumbers' Association of Syracuse, N. Y., on Tuesday evening, February 11th, an election of delegates and alternates to the state convention at Buffalo on March 11th and 12th was held. The delegates elected were the following: August Schall, Rhoda McGraw, E. B. Dunkerton, M. F. Burke, T. X. Donovan, P. F. McDonald, Wm. Drexel and I. G. Ward. The following were the alternates elected: A. M. Vandenberg, Chas. A. H. Kienzle, Fred W. Soper, E. J. McCarthy, John J. Reidy, John Oswald and E. G. Houde.



Members of the Fox River Valley Benevolent and Social Club and Their Families at a Most Enjoyable Outing Last Fall.



# Annual Banquet of the Pittsburgh Association

**S**UCCESS marked the second annual banquet of the Master Plumbers' Association of Pittsburgh and vicinity, which was held in the English room of the Ft. Pitt hotel, on the evening of February 17. It was also the first time the ladies were the special guests of the association, and this only added beauty and charm to the affair. So successful was the second banquet, that the officials of the association contemplate holding these social sessions at shorter intervals than once a year, believing that by so doing the master plumbers will form a bond of fellowship that cannot be severed.

The banquet was arranged by a committee composed of W. H. Rowswell, chairman, Jacob Soffel, George Rodgers, John Paul, S. S. White and E. M. Tate. Only three speakers were arranged for and because of an unforeseen circumstance, one of the speakers, Dr. E. R. Walters, director of the bureau of health of Pittsburgh, was unable to attend. He was to speak upon "Health and Sanitation."

any need to "get his hammer out" and knock other members for what they did at a meeting. "Come into association work with a will," said Mr. Will. "Get into the harness like my friend White and a number of others have done during the last twenty years, and help the wheel horses of the association who have done so much in the past for your good now. You should also learn how to uphold prices, and not to knock them down. The association tells you how this should be done, and how it is being accomplished. If you are a member of the association, and do not take an active part in its welfare, then you are losing a great opportunity to help your own self in a business way, and the association as a unit is also losing your aid, which it at all times requires. While you can help the association, it in turn can help you to better work, and also financially."

Jacob Soffel, an active association member, delivered an interesting address on the subject of "Organization."



The Second Annual Banquet of the Master Plumbers' Association of Pittsburgh and Vicinity.

S. S. White, ex-president of the Pennsylvania State Association, was toastmaster, and he did his part well. He is a capital story teller, and he kept the gay throng in a happy humor throughout the evening. Mr. White was introduced by E. M. Tate, the genial secretary of the Pittsburgh Association.

Mr. White showed his pleasure of the presence of the ladies at this banquet by making the urgent suggestion that the association from now on plan to hold social affairs more than once a year, and that to each of these the fair sex be invited. He declared that by so doing the master plumbers would get better acquainted with one another, and that it would result in good for all. He then introduced C. K. Will, of Lancaster, Pa., president of the Pennsylvania State Association of Master Plumbers, who had been assigned to speak upon "Our Association."

Mr. Will laid special stress upon the part the younger members of the association should take in organization work. He urged every new member to attend all meetings and learn what would be of value to him in his everyday business life, and that by so doing he would not have

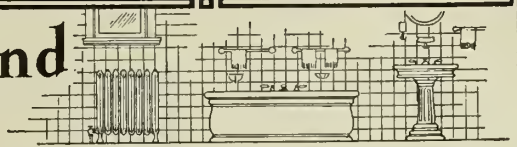
"Without an association, no work can be carried on to a successful end," declared Mr. Soffel. "There must be unity among the members and the plumbers as a whole. They must be of one accord, and work for the success of others as well as for themselves."

The close of the banquet was given over to a number of brief speeches by the different members.

President F. J. Hanley was among the last list of speakers, and the interesting statement was made by him that the master plumbers of Pittsburgh and vicinity planned to have the whole of Allegheny county identified with the association. He declared that it was also planned to have district meetings, either weekly, bi-monthly or monthly, where the plumbers of a certain territory could get together for their individual good.

Brooklyn, N. Y.—The H. F. Meistrell Heating Co. has been incorporated to conduct a general heating business. The incorporators are: Henry F. Meistrell, Joseph N. Meistrell and S. G. Meistrell, all of Brooklyn. The capital stock is \$10,000.

# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—The formation of a society or association of plumbing inspectors in western Canada is now being seriously contemplated according to a letter received by Asst. Chief Sanitary Inspector Claffy of Chicago from James Smith, plumbing inspector of the city of Winnipeg, Manitoba. The letter also states that reforms in ventilation are being urged in Winnipeg. The communication reads:

"Dear Sir:—Referring to yours of the 27th inst., I am still waiting receipt of that copy of your ordinance on "Ventilation of Buildings" which you promised to try to send me. I am rather anxious to get this as I believe yours is the only city so far which has attempted to do anything in the way of ventilation of buildings by ordinance, and I have recently recommended that the city of Winnipeg get power to control both the heating and ventilation of buildings, so that if this power is granted to the city it will be up to me to draw up an ordinance covering the matter and if I had your ordinance before me my task would be rendered less difficult. You will be interested to know that in response to a number of requests from plumbing inspectors throughout Western Canada it has been decided to hold a convention for plumbing inspectors and other interested parties, in Winnipeg about the middle of April. The principal business of the convention will be the formation of a society or an association, and it is also proposed to devote considerable time to the discussion and assembling of a uniform Plumbing code for Western Canada.

Very sincerely yours,

James Smith,  
Plumbing Inspector."....

William G. Stout and Herman L. Schultz master plumbers of St. Paul and Minneapolis respectively were in Chicago recently to call on the plumbing supply houses. They report trade conditions brisk and on the upward trend in the Minnesota cities.

## Minnesota

St. Paul.—The Builders' Exchange of St. Paul held its annual banquet at the Ryan Hotel on January 27th. One of the largest crowds ever assembled at a banquet of its kind being in attendance. Builders and contractors from several smaller cities in the state were visitors. President Vincent of the State University was the principal speaker, preceded by Alderman Levitt Corning and Mayor H. P. Kellar. United States mail carriers in full uniform delivered "parcel post" packages, properly stamped, to each delegate, in which was found two cigars and a small steel tape line. The menu was very attractively written up in the form of an architect's specification.

Richard M. Knox, 465 Bancroft street, is installing a heating plant for the Craftsman Building Co. at Finn and

Goodrich avenues. He is also remodeling heating plants for J. C. Jones at 205 McAlester avenue, and for Geo. H. Hamilton at 892 Lincoln avenue.

Art Swenson, 916 Case street, was awarded the plumbing and gas fitting in a new residence for F. C. Cooke, to be built at Lincoln and Hamlin avenues.

J. J. Bailey, 446 Jackson street, is installing the plumbing and gas fitting in a duplex flat for Kovantinetz Bros., at 644 Ashland avenue.

Baird & Sudheimer, 106 Iglehart street, were awarded the plumbing and sewage work in a residence at White Bear Lake that is being remodeled for A. H. Stein.

Paul Chapel, 189 W. Third street, is remodeling some of the plumbing work in the court house and city hall.

### Show Room of Wadena, Minn., Firm.

J. M. Robb & Co., has an up-to-date plumbing establishment in Wadena. Although the company has been in business but a comparatively short time, the business done extends over quite a territory and it is expected



Corner of J. M. Robb & Co's. Showroom and Office at Wadena, Minn.

that a large amount of city as well as country work will be done this coming season. L. B. Robb, the gentleman in the picture, looks after the office and collections, while J. M. Robb will put his new automobile to good use in getting from town to town and getting from farmer to farmer, estimating contracts and looking after the work.

## Indiana

Sullivan.—State President Wm. J. Woolley visited this city on Monday, Jan. 20, and called on local plumbers, who reported work very brisk. While here Mr. Woolley secured applications for membership in the Association from Long & Warren and H. Schmidt & Son, two of the leading firms of this city.

Terre Haute.—At a recent meeting of the local Association of Master Plumbers, the following members were elected for the ensuing year: John M. Feritag, president;



Lyman Williams, vice-president; Anton Prox, treasurer; Chas. W. Wissel, secretary.

On Monday night, Jan. 20, a special meeting of the Terre Haute Local was called to entertain State President Wm. J. Woolley, who was in the city on an organizing trip through the southern part of the state. Mr. Woolley made a talk before the association, reviewing in part the work accomplished by the state and national associations during the past year. He urged the local members to attend their meetings, and the officers to take active part in developing sanitation in their locality.

Indianapolis.—Association affairs in Indianapolis have taken on a boom, and Indianapolis now boasts of having over fifty members. A campaign for new members was started here Tuesday, Jan. 21. Tuesday night a rousing meeting was held in the local association rooms. State President Wm. J. Woolley, at the request of Local President Geo. A. Geis, introduced Mr. Carl Stein, of Chicago. Mr. Stein said in part:

Gentlemen: It gives me great pleasure to be with you this evening and meet some of the prominent master plumbers of the state of Indiana. I have been delegated by our national president, Mr. Frank J. Fee, of New York, to co-operate and assist your state president, Mr. Woolley, in doing some missionary work among some of the smaller towns throughout the state, and I trust the result of our joint efforts may prove beneficial and strengthen our association in this section of the country. While I have no personal message to convey to you from our national president, I may say to you, as a member of the National Board of Directors, that our national association, as stated in his recent letter (December 6) to the presidents of local associations, urges upon them to make a special effort to have every legitimate master plumber in your locality become a member of your local, as you all know that in unity there is strength and stability.

There are many evils which confront our trade which can only be eradicated through united efforts on the part of our members and one of the greatest of these is the irresponsible general contractor. Steps should be taken by every state and local association to free our members from this growing menace to our business. What, may I ask, are you doing locally to check the evils of subcontracting? In the proceedings of the Salt Lake City convention you will note that the state of New York was successful in having enacted a law providing that in all **public work** for municipal, county or state, the plumbing and heating contracts must be let separately. Do you think that a similar law would prove beneficial in your city or state? We have been able through persistent effort to get the city of Chicago to let its plumbing contracts separately, and I can assure you that in our case it has proven beneficial. We have not yet been able to get the state of Illinois to let the plumbing of its new buildings separately, but we hope in the near future to be able to effect this reform, either through an act of our legislature or through the State Board of Administration. It is the intention of our national president to institute an active national campaign in conjunction with the Legislative Committee to cure this evil and I hope he will have your hearty support.

Last year I had the honor of being chairman of your National Sanitary Committee and printed copies of the report have no doubt been placed in the hands of your local and state health officers. The sanitary condition of some of the public buildings, parks, etc., through the country, as shown by the statistics gathered, are in deplorable shape, and it should be the duty of our associa-

tions throughout the country to take up the question with the proper local authorities, with a view that sanitary arrangements and ample plumbing facilities should prevail in every city. We should also advocate Public Comfort Stations and appoint a special committee in each local to promote this idea.

The question of a national organizer has been the subject of debate at a number of conventions. At the Salt Lake City convention Mr. Braden, of Texas, suggested that the time was opportune for a national organizer or educator, and proposed to increase the national per capita tax to provide for the expense of such an officer. The delegates concurred in the views of the Committee on Resolutions, that a national organizer could not cover the United States and the suggestion that the question be taken up by state association. It would be well for locals to discuss the proposition in anticipation of the subject being taken up at the state convention.

In conclusion, gentlemen, to quote our national president, "Let's be progressive and work unitedly in making the present year one of the most notable in the history of our association." If each member will only do a little, much good can be accomplished by the association. Let us hope the year will not only be notable in sanitary advancement, numerical strength, but in more effectively safeguarding our business interests.

At the conclusion of Mr. Stein's speech, Mr. Woolley spoke at length on the work accomplished by the state association, and expressed his views of how a local association could be run to advantage to its members. Both gentlemen were roundly applauded at the conclusion of their talks, and that their message went home was evident by the number of men who joined the local before departing.

Messrs. Stein, Woolley and Geis continued their organizing work throughout the week.

Bedford.—The firm of J. J. Quinn & Co. is still busy completing last year's business. Among other jobs this company is putting the finishing touches on the plumbing and heating in the Bedford high school and two grade schools in this city, the aggregate contract amounting to \$26,750. This firm has been awarded the contract for the plumbing in the Brazil court house at Brazil, Ind., contract price \$5,000.

## Tennessee

Memphis.—The plumbing supply houses and the contractors report that business has been a little quiet the past month, but it is slightly improved with the advent of February. Repair business is holding up well, but it is not the most satisfactory character of work. The heating trade is relatively better than plumbing. The rough weather has interfered with new construction work. Among the master plumbers there is a strong inclination obvious now to pay more attention to meetings and to the social side. The local people have been reorganized and harmony exists among the trades.

The Southern Heating Co., Jefferson avenue, reports that the 1913 season is opening very well. They are doing the contract of steam heating on a large Masonic Temple for the York rite Masons. Jas. Alexander & Co., of Memphis, are the general contractors.

Hanley & Casey Co., of Chicago, have the plumbing and heating contract on the new Chisca hotel here. This

hotel, to be the largest in Memphis, will have perhaps 300 bathrooms besides the general lavatories.

The Hughes Heating Co. is installing the heating system for the Mississippi Valley Trust Co. in this city. This company also has the heating contract for a six-story building for S. C. Toof & Co. on Madison avenue.

J. F. Whittaker has moved his plumbing place from Union avenue to 163 Court avenue, where he has a neat and convenient place.

Hughes & Harris, Poplar avenue, report the outlook very good for Memphis business, but state it has been extremely quiet during the winter.

Nashville.—J. S. Moore has opened a new plumbing business at 55 Bridge avenue.

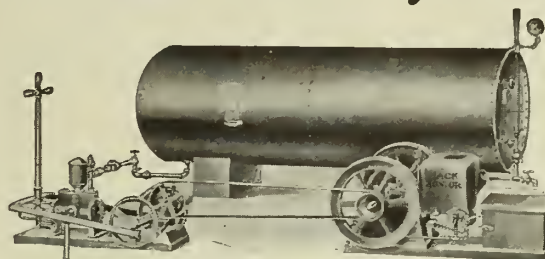
McKenzie.—J. N. Robertson is doing the plumbing work, including closets and lavatories, on the new \$10,000 freight depot of the Nashville, Chattanooga & St. Louis R. R., in this town. He will also do some plumbing work for the L. & N. R. R. at the same place.

## Massachusetts

Boston.—President James S. Cassedy, of the Massachusetts State Association of Master Plumbers, has announced the date of the annual convention and election of officers as April 9. The convention will be held in Boston. The annual "night before" gathering and banquet which has been eliminated for the past few years is to be revived this year.

Boston.—A bill to provide that building contracts made by public boards shall be split so as to allow the plumbing, heating and ventilating work to be bid for separately, was discussed at a hearing before the committee on municipal finance of the Massachusetts legislature. There were a large number of men connected with the several trades concerned present, many of whom argued that under the system of awarding the entire contract to one person they were not being treated fairly and the board contracting for the work was being defrauded. The sub-contracts were put out at such a figure, they said, that the contracting boards were frequently cheated by the substitution of poorer material. The large contractors sometimes failed between the time of receiving their money and settling with the sub-contractors also, witnesses said.

## Fairbanks-Morse Domestic Water Systems



Furnish water under pressure for the kitchen, bathroom, laundry, etc., and give service equal to and, in certain respects, even superior to that furnished by city mains.

Installation cost reasonable. Operating cost trifling.

The outfit here shown is easily set up in the basement of any ordinary residence and it can be operated by hand, engine or electric motor.

Complete diagrams showing installation will be furnished with each outfit and as our line is complete you will be able to select an outfit exactly suited to every requirement.

Write for Catalog No. WD1883

### Fairbanks, Morse & Co.

900 S. Wabash Ave.,

Chicago, Ill.

Oil, Gas and Gasoline Engines, Pumps, Electric Light Plants, Electric Motors

## Sell Only Closet Seats Bearing This Trade Mark

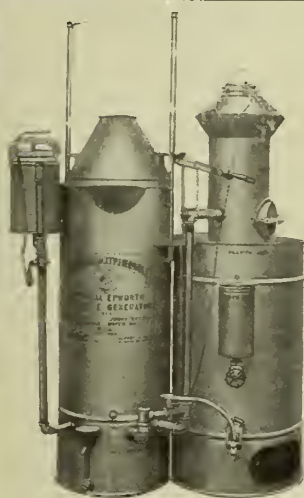


**"NEVER SPLIT"** Joints are held permanently by  
Steel Bolts, Nuts and Washers

Is guaranteed for five years  
Will Satisfy Your Customers

SEND TODAY FOR  
"THE REASON THEY NEVER SPLIT"

Every Plumber  
Should  
Have a Copy



GIVE your Customers  
Light made by the  
IDEAL EPWORTH  
Generator which is guar-  
anteed to give satisfac-  
tion and each sale will  
bring you another.

Ideal  
Epworth Acetylene Co.

General Office:  
Johnstown, Pa.

Branch Offices:  
Waterloo, Iowa      Anderson, S. C.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

## Situations Open.

WANTED—TWO FIRST-CLASS PLUMBING specialty salesmen for the Central States. Address Box 928, care of "Domestic Engineering," Chicago. 2-22

WANTED—CAPABLE, EXPERIENCED, outside plumbing goods salesman; southern California. State age, experience and salary expected. Permanent position. Answers confidential. Address "Wholesale Plumbing," P. O. Box 648, Station C, Los Angeles, Cal. 2-15, 22

WANTED—PLUMBER WHO IS CAPABLE of doing both heating and plumbing; must be strictly temperate; married man preferred; wages \$18 per week the year 'round; good position to the right party. E. V. Lombard, Lake City, Minn. 2-15, 22

WANTED—EXPERIENCED MAGAZINE Subscription Salespeople who can forcefully and convincingly present the varied features of technical magazines, to travel Southern States this winter. Bond and references must be given. Commission contract worth \$100 to the right party. Address Box 897, care of "Domestic Engineering," Chicago, Ill. tf

WANTED—RELIABLE ADVERTISING solicitors. P. O. Box 298, Chicago, Ill. 2-15-22

## Situations Wanted.

A HIGH CLASS SALESMAN WITH A large acquaintance among the architect and plumbing supply trade in Chicago and vicinity desires a connection with a manufacturer of plumbing or heating lines. Address Box 927, care of "Domestic Engineering," Chicago. 2-15, 22

## For Sale

A SNAP—PLUMBING AND HEATING business, established for twenty years and located in best city in southwest, for sale. Reason—retiring from business. Address Box 919, care of "Domestic Engineering," Chicago, Ill. 2-1, 8, 15, 22

## Miscellaneous

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W. Lake St., Chicago. tf

PLANT WANTED—WE WANT TO purchase a plant for manufacturing Hot Water Range Boilers. Must be complete; state approximate price and describe equipment and where can be seen. Apply to Box 910, "Domestic Engineering," Chicago. 2-15, 22

## 1913 PIPE PRICE EXTENDER, 36 PAGES.

(For New Lists adopted January, 1913.) With the aid of this little book the price of any length and size of pipe can be obtained in an instant. It is an absolute necessity for any one computing the values of Black and Galvanized Pipe, as there is absolutely no chance for mistakes. Mailed to any address on receipt of 50c in stamps. Address Edgar J. Wuller, Belleville, Ill. 2-22

## Particular Notice.

We manufacture a complete line of Sectional Tank Heaters, Garbage Burners and Hot Water and Steam Heating Boilers. To heat a 30-gallon tank, or to heat the largest buildings; these heaters have extra deep fire boxes and extra large feed doors. They have 100 per cent self-cleaning fire surfaces. They will burn any kind of fuel successfully without clogging with soot. We are anxious to make direct connections with responsible dealers to handle these heaters.

If you want a direct factory connection write us, or better still, get on the train and come and see us and inspect our line. You cannot get right prices unless you have a direct factory connection and do your part towards cutting out the enormous expenses of selling the goods to you.

We are informed that some heating boiler manufacturers actually spend more money on Jobbers, Architects, Traveling Salesmen, Advertising, etc., to sell boilers to the heating contractors, than it costs to cast these boilers in the first place in the foundry.

We can handle a limited number of direct accounts, so don't wait. It's now up to you to help reduce the high cost of living. Ideal Heating Co., Oskaloosa, Iowa. 2-15, 22

## WE PUBLISH:

PRINCIPLES AND PRACTICE OF PLUMBING. By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

SEWAGE PURIFICATION AND DISPOSAL. By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

HISTORY OF SANITATION. By J. J. Cosgrove. History of the plumber's craft from the time of the primitive man up to our own day. 88 illustrations. Bound in cloth; postpaid, \$1.50.

PLUMBING ESTIMATES AND CONTRACTS. By J. J. Cosgrove. Contains much valuable information for the master plumber, pointing the way to conduct the business of plumbing in business-like manner. Bound in cloth; 210 pages; 5½x8½ in.; postpaid, \$3.

DEAN'S STEAM FITTER'S COMPUTATION BOOK. Tables for finding cubical contents of rooms and radiation required, also general information on points of interest to steam and hot water fitters. Flexible cloth bound, 5x7½ in., 90 pp. Postpaid, \$2.50

ROUGHING-IN HOUSE DRAINS. Edited by John K. Allen. A complete guide to roughing-in plumbing from the digging of the sewer to the finishing length of the house-drain. 88 illustrations; bound in boards; 6½x4¼ in.; 184 pages; postpaid, 50 cents.

NOTES ON HEATING AND VENTILATION. Third edition. This book is a resume of lectures delivered to classes in heating and ventilation at the University of Michigan. It is written primarily for the steamfitter and designer of heating systems. Reduced to as brief a form as possible, so that readers can readily find notes or data desired. Bound in cloth 5½x8½ inches; 226 pp.; postpaid, \$2.50.

AIR VALVES FOR STEAM HEATING systems. By W. H. Wakeman, author of "Engineering Practice and Theory." Postpaid, 25 cents.

WROUGHT-PIPE DRAINAGE SYSTEMS. By J. J. Cosgrove. An invaluable aid to those who install iron pipe systems. Bound in cloth; 150 pages; 5½x8½ in.; postpaid, \$2.

"RULES AND DATA ON FAN HEATING and Ventilation," or "Flow of Steam Through Pipes" will answer the questions that have puzzled you. Practical. Blue print form. Thomas Tait, Moline, Ill. 8-17

MAKING THE BUSINESS PAY. Letters of John Burton, retired successful plumber and steamfitter, to his nephew still in business. Practical, instructive, entertaining, a guide to better business. Cloth bound, 5½x7½ in.; 168 pp. Postpaid, \$1.00.

HEATING AND VENTILATING BUILDINGS. By Prof. R. C. Carpenter, Cornell University. Describes the latest improvements in the art of heating and ventilation for the technical readers. Bound in cloth, 9¼x6 in.; 562 pages; postpaid, \$4.

STANDARD HEATING SPECIFICATIONS AND CONTRACT BLANKS. For low pressure steam and hot-water heating apparatus offers a dignified legal form for specification proposal and contract for the general use of steam and hot-waterfitters. Printed on linen paper; 14x8½ in.; 4 pages. Price of either steam or hot-water or mixed blank, 50 copies, \$2.50.

A MANUAL OF TECHNICAL PLUMBING AND SANITARY SCIENCE. By S. Barlow Bennett, Consulting Sanitary Engineer. Treats of every branch of the subject in a clear and practical manner; especially adapted to the needs of those making a thorough study of sanitation and public health. 9¼x6 in., 300 pages, over 400 diagrams and photographs, bound in cloth, postpaid, \$2.00.

A PRACTICAL MANUAL OF STEAM AND HOT-WATER HEATING. By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth, 5½x8½ in., 359 pp.; postpaid, \$2.50.

MODERN PLUMBING ILLUSTRATED. By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

Address:

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago

Kindly quote "Domestic Engineering" in writing advertisers.



# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing Heating Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1055

CHICAGO, MARCH 1, 1913

Vol. 62, No. 9

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## WHAT DOES THE PUBLIC THINK?

CONSIDERABLE newspaper space has been used in the past few weeks in disseminating misleading information that can easily do an injustice to the plumbing business in the minds of the public.

The magazines have taken up the subject and have elaborated upon it, whether their information might or might not be correct.

As a consequence of such agitation will there be a demand from the consumer for a material reduction in the price on plumbing goods and on contract work?

Will there be a feeling that the plumber is the responsible party, after all?

The man to set right the ideas of the public regarding fair prices for plumbing goods is not the manufacturer, not the jobber, but the man who comes in daily contact with the purchaser of plumbing goods—the master plumber himself.

There was never a time when a better opportunity offered to put the business of the master plumber right before the community than just at this time.

Not next summer, nor next year, but **today** is the day of opportunity.

There is not a nobler business under the fair blue canopy than that of the master plumber.

It is high time that the ridicule of the newspaper cartoonist, the shafts of the paragrapher, the whims of the yellow journal, should be directed to better purpose.

The customer should be set right as to the wonderful advances that have been made in the business in the last five or ten years.

There was never before offered such a wide selection of designs in enameled ware, at such low prices. The quality of the goods is there, and there is no present indication that prices are going lower.

Thanks to better education of the buying public, the cheapest goods have a harder row to hoe now than ever before.

What is of most importance right now to the trade is to inspire the confidence of the buyers—the public—those who pay the bills, so that it may be possible for the business of the Master Sanitarian to prosper as it deserves.

The work of the different state associations along this line is getting results. But the individual members in each community must put their shoulders to the wheel to keep the good work going. And this applies to non-members as well.

It is but a step from the **respect** of the purchaser to his **confidence**—and **confidence** is the structure on which business is built.

See to it that the **confidence** of your customer is not lost and you will find that with due diligence a bank account, and indeed opulence, will accrue.

There's a lot yet to be done to put the plumbing business where it belongs—and **you're the man to do it**.

It has been said that the world respects a man only as he respects himself. This saying is especially true of the business man—the plumber who depends upon the confidence of individuals to conduct his business.

And the same thing applies to the plumbers as an organized body—they must keep the reputation of the organization in the limelight—and insist on it being respected by the public, by the newspapers, by city and state governments and by the members themselves.

Whatever may be the opinion of the public as to the manufacturers and jobbers of plumbing goods, it is surely up to the plumbers, individually and collectively, to cultivate the good will of the buyers, put the trade on a higher plane, and collect something by way of profits for the effort.

What do you think about it?



# A Plumbers' Credit Information Bureau

As Conducted by the Philadelphia Master Plumbers' Association

*CREDIT:—Belief, faith; a reliance or resting of the mind on the truth of something said or done.*

*Reputation derived from the confidence of others; esteem; estimation; honor; reputation; good opinion founded on the belief of a man's veracity, integrity, abilities and virtue.*

*In Commerce:—Trust; transfer of goods in confidence of future payments.*

**J**UST as Webster correctly defines, credit to anyone should mean: belief, faith and good opinion founded on a man's reputation; only after the seller has thoroughly investigated the reputation of any prospective purchaser should he be willing to enter an order for work to be done or for materials to be furnished.

Merchants in most lines can enter an order from anybody and then usually have sufficient time before making delivery to look up the credit of the person placing the order. As a last resort they can stick a C. O. D.



Robert H. Pflug-Felder, Philadelphia, Pa., Secretary of Bureau.

label onto the package and the material is either paid for or brought back.

Not so with the plumber. The C. O. D. method of collection, in the plumbing and heating lines, is almost out of the question, as 99 per cent of all the work done has to be "charged" and furthermore the placing of a plumbing order, especially jobbing, is usually coupled with a positive promise when the work is to be done and in most cases there is very little time for investigating the customer's credit. Furthermore, the size of the usual plumbing establishment or the volume of business done, does not place the master in a position to keep such channels of information open as are necessary to obtain credit reports. As a consequence, when a request for a plumbing or heating estimate comes in, the call is answered and often many valuable hours, and possibly considerable car fare, are spent in figuring up a job for some skinflint when ready access to commercial credit reports would prevent this waste.

Worse still, the same skinflint, although well-mannered and confidence-inspiring, may place the order for work done and in thousands of cases the work is started without the seller having anything whatever but the man's looks and suave words, on which to base the customer's worthiness of credit. An enormous loss to the trade can be the only consequence and as there is need

for safeguarding the plumber's interest in this respect throughout the country, it is well to see how Philadelphia handles this difficult problem.

The Philadelphia Bureau has now been in successful operation for a year and it is estimated has in that time prevented possible or likely losses to the extent of between thirty and forty thousand dollars to the members of the Philadelphia Association.

The Bureau has on file something like 120,000 credit reports on individuals and while of course this does not cover every person, it forms a firm basis for the Bureau's work. A member can call up the Bureau on the 'phone and after first identifying himself by giving his identification number, which is only known to himself and the Credit Bureau, he will be given such information as can be ascertained from the records on hand. If there is no record of the person on whom the report is asked, the bureau will obtain a report through trained reporters. To further illustrate the working of the Bureau we herewith print abstracts from the little "Blue Book" issued by the Association's Credit Bureau, also facsimiles of special reports.

**Cause.**—The important move to add a Credit Bureau to the many good features of the Association has been prompted by the fact that as a rule the master plumber will accept work from a new customer and will extend credit, often to the extent of hundreds of dollars, without making the necessary diligent inquiries as to the financial or moral standing of the person or firm placing the order. Such loose and ruinous methods of extending credit are unheard of amongst any class of business men except those following mechanical lines. It should be no easier for anyone to obtain credit from a master plumber than it is to open a charge account in a department store.

**Its Operation.**—In order to protect our members we have made arrangements with reliable credit agencies, which enable this Bureau to furnish members with reports, either immediately in answer to a 'phone call, or if the individual or firm inquired about has no rating, then by special report. It is the intention to answer all inquiries and give such information as is at the disposal of the Bureau without making any charge therefor.

**Illustration.**—You have given an estimate for some work to be done for John Doe. You are notified that your bid is accepted and are ordered to start the work at once. It is a poor business man indeed who would proceed with this work without first ascertaining whether this person is in the habit of paying his bills promptly and whether he is financially responsible. The new arrangement gives you the privilege of calling up the Bureau to ask for information. You are likely to receive any of the following answers:

"Appears on our delinquent list, Class B, and is not considered a good risk."

"Has fair income. Medium, prompt pay, fair risk for moderate credit."

"Reports advise cash dealings."

"Fair risk, moral basis only."

"Wife owns real estate, medium prompt pay, moral risk only."

"Prompt pay, good risk for a moderate credit."

"Reputed to possess means, good risk."

"No means outside salary, slow pay."

"Very slow and irregular, undesirable."

Or—: you may be informed that we have no record of this party.

**Special Information.**—If the Bureau can not give you sufficient information by 'phone you may then make application in writing, using the inquiry ticket furnished for this purpose and enclosing 50 cents in check or cash, requesting a "special" report, or you may ask for a "special detailed" report enclosing \$1.00 for the service. The special reports at the cost of 50 cents each (a special price obtained by the Association), will give you such data as can be obtained by the credit agency's trained reporters. Reports of this kind, similar to sample report printed on another page, will enable the member to judge whether it is wise to extend credit to a new customer or whether an already extended credit should be cut off. If "special detailed" report is required, this Bureau will go into the matter still further and will furnish the member with information as to judgments, mortgages, etc., against certain property or persons. Reports of this character will be furnished at \$1.00 each. The agencies that furnish our reports, furnish reports to several of our leading department stores and their extension of credit for a charge account or their refusal to open an account is based thereon. Its manager has been actively supervising credits for a period of nearly thirty years and consequently reports from this concern can be considered reliable information.

**Warning.**—Members should not forget that it is just as important to look up a person who places his first small order with you, as it is for any order of a large amount. If you will look over your bad accounts you will find that in most cases the customer gained your confidence and got on your books by paying promptly, but eventually leaving a balance. As soon as it appears that you have made a customer it is of vital importance that you should know all about him to see (quoting Webster) whether he has "reputation derived from the confidence of others." If the new customer would ask for a loan of fifty dollars he would be promptly refused, and before accepting the person's note for the amount you would want to know all about him; while on the other hand, the average plumber would readily figure on a bathroom, cutting the profit down below running expenses, and as soon as the order is placed he would, again quoting Webster, "transfer goods in confidence of future payments," i. e., refusing a direct loan, but giving its equivalent in material and time without asking questions.

#### Aims and Objects.

To gather, compile, properly classify and keep for ready information to members a book or card index of firms, individuals or corporations, with such information regarding their moral or financial standing as can be obtained.

#### "Special" Service.

Where the above mentioned records do not give the required information to the member, the Credit Bureau will furnish to members a special report on any individual, firm or corporation for the sum of fifty cents. These reports will be obtained by special reporters trained in the art of investigating financial and moral standing and will give fairly accurate data from which the members may judge whether the extension or refusal of credit is wise. See sample report herewith.

#### Specimen Copy of a "Special" Report.

Doe, Jane L.

Philadelphia, Pa.

1/8/12.

2000 Blank Street.

The applicant in this case is a married woman about 38 years of age and has resided at this address for some time, having formerly resided at other addresses in this vicinity. Has a family consisting of herself, husband and two children, and they are apparently people of good character and habits, personally well regarded.

Are the reputed owners of the residence property and Mr. Doe is general superintendent and consulting engineer for the Helix Mfg. & Construction Co., 111 N. Blank Street, has been connected with this firm for some years and is said to have some stock in the company, and his income is a large one.

Through our investigation among the local trade we find that all accounts are met in a prompt and satisfactory manner, those consulted speak well of the applicant and we learn nothing whatever to their detriment. It is thought that she would be entirely safe morally for a reasonable credit.

#### Specimen Copy of a "Special-Detailed" Report.

Name, N. O.

Philadelphia, Pa.

5/1/11.

1000 Blank Street.

The applicant is a married man about 38 years of age and has resided at this address about one year, having formerly resided at 1001 Macher Street. Has a small family and is a man of poor reputation financially.

He is renting the residence property, the same being owned and assessed to James Wanger at \$12,000. Mr. Name is president of the real estate firm of Name, Bown & Co., 10th and Walnut Streets, is in receipt of a moderate income from this source, and his business is not very good at this time. In addition to this his wife conducts sort of a furnished room house, renting out rooms, and thus adds to their income.

Investigation among the local trade shows that he bears a poor credit reputation, lives beyond his income and owes considerable money, most all merchants in this vicinity having accounts against him. We have information on file covering a period of several years, and he has always borne a poor reputation for credit and is said to be a man who moves frequently.

By search of the judgment records of Philadelphia County we find the following judgments recorded against him: On April 10, 1911, one given to E. Doe for \$271.30; on January 17, 1911, one for \$36.30 to Geo. Wannamaker; May 17, 1911, to J. E. Name for \$151.87; also another to the same party on Sept. 15, 1911, no amount mentioned. On January 3, 1912, one for \$640 to J. S. Lucelo and these all stand of record to date.

#### "Special-Detailed" Service.

Upon special request the Bureau will furnish a still more comprehensive report, which includes a search of municipal records going back ten years, regarding judgments, mortgages against certain persons, properties, firms or corporations. These reports will be furnished at one dollar each. See sample report herewith.

#### Rules of the Bureau.

1. The credit reports and information given are for the private information of the member to enable him to protect himself against loss, and must be considered confidential.
2. Inquiry blanks must be filled out and mailed promptly.
3. Inquiries by phone, either Bell or Keystone, should be made between 10 a. m. and 5 p. m.
4. When special report is desired, it will be necessary for the member to make this request in writing over his signature and in that case only will the Bureau furnish special report—(Inquiry tickets will be furnished for that purpose.) No verbal inquiry will be answered in writing but will be answered verbally only.
5. When a "special" or "special-detailed" report is asked for, the request must be accompanied by cash or check. The credit report will be given over the 'phone as soon as received.
6. It becomes the duty of a member to promptly notify the Bureau should a previously reported delinquent become paid up.
7. When asking for "special" or "special-detailed" re-



port as much information as possible should be given. This will assist the reporter on the case, giving him a clue to work on and will save time.

8. In all dealings with the Bureau, members should keep in mind that all the work done is done without any income to the Association. The work is conducted by a member of your Board of Directors in an endeavor to

help the members at large. The expenses, postage, printing, 'phone-calls, etc., are defrayed by the Association. The charge for special reports is actual cost. The Information Bureau should be used liberally, but should not be mis-used.

9. Address all mail to R. H. Pflug-Felder, 8th street Cor. Norris, Philadelphia, Pa.

## The Pneumatic Tank for Sprinkler Systems

You Are Familiar With the Elevated Wood Tank on Factory Buildings. Here is a Case of a Pneumatic Tank Used for This Purpose

**I**NCREASING general interest in fire preventive devices in the past few years has called for the use of efficient automatic fire extinguishing devices. Cooperation with the fire department is all right in its place and the fire department itself will never be superseded by any automatic system; however, sprinkler systems for factory buildings have been in use for quite a few years and the system is being extended to office buildings and even to hotels, apartments and houses.

The increasing use of the automatic sprinkler system has brought into requisition dependable storage systems for the water that is necessary to operate them. In the case of many fires, damage has been done by elevated tanks, and in many cases an elevated tank has been frozen when most needed.

The decrease in insurance rates, made possible by the installation of sprinkler systems, has been a great incentive to the increase of these devices and with adequate storage facilities for the water, their efficiency is much increased.

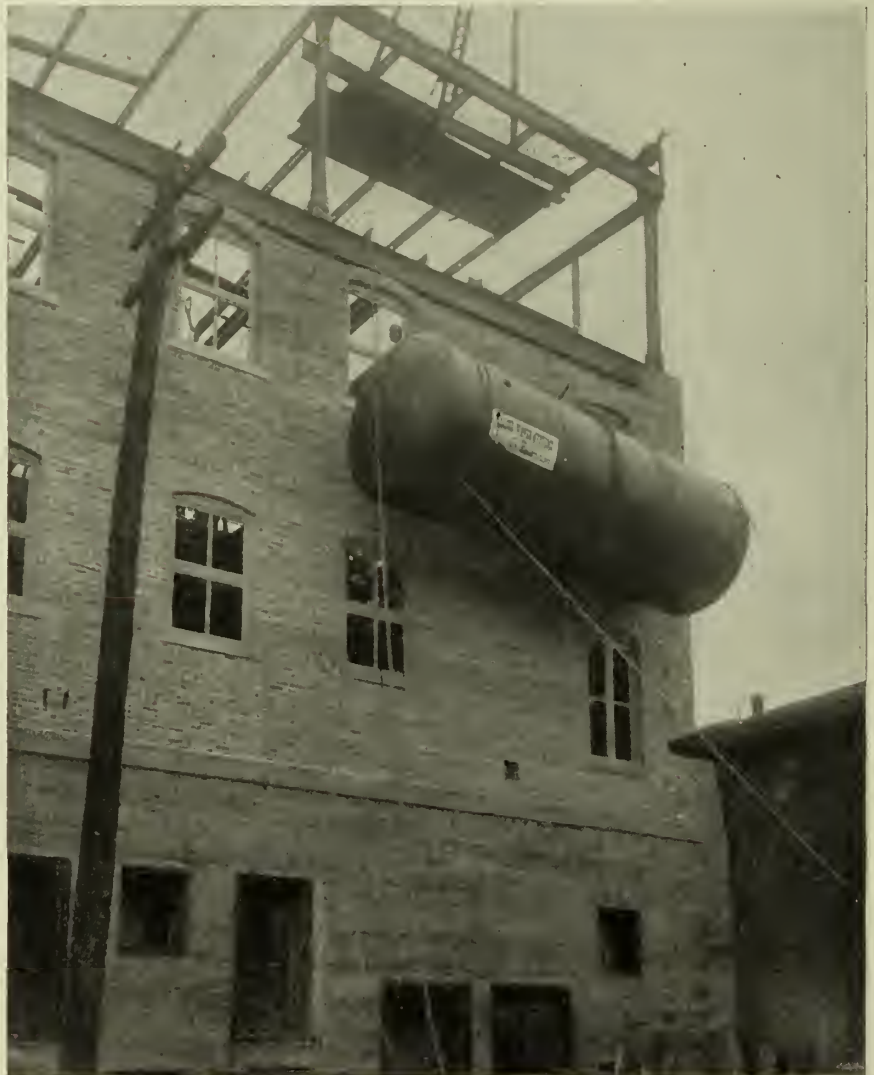
Many firms do not wish to consider a separate steel tower with a wooden or steel tank mounted on it, both because of its excessive cost and its up-keep expense and danger.

There has just recently been built by the Review Printing and Stationery Company, Decatur, Ill., an annex to their five-story building for the use of their manufacturing departments, the total cost being about \$45,000. This building was made as nearly fireproof as possible, being constructed of concrete, but to make assurance doubly sure it was equipped with a sprinkler system.

There was neither desire nor room for a tower with a tank for the water supply and it was decided to place on the roof of the building, duly protected from freezing, a pneumatic steel tank for this supply. The necessary footing was provided.

The illustration shows the Leader tank being hoisted to the top of the building by cables. The total time

consumed in placing it on the roof was but fourteen minutes. The tank weighs 12,763 pounds, is 20 feet long, 84 inches in diameter, with  $\frac{5}{8}$ -inch heads and 15/32-inch shell, the longitudinal seams being triple riveted.



Pneumatic Tank Being Placed to Supply Sprinkler System.

The sight of this tank being elevated was indeed an interesting one. It's presence on top of the building will not be as dangerous as that of a wooden tank, nor will it require constant attention.

# Ohio Master Plumbers' Convention at Toledo

The Interest and Attendance at the Twenty-second Annual Convention Were Greater Than at Any Previous Meeting

THE twenty-second annual convention of the Ohio Master Plumbers' Association scheduled for February 18, 19 and 20, at Toledo, opened at the convention hall in the Valentine Building, on Tuesday morning, February 18, with a record breaking attendance.

The delegates and visitors began to gather at the Boody House as early as Monday noon, and by eight in the evening a good sized crowd was gathered. An informal reception was held at eight p. m., in the Boody House parlors, at which refreshments were served during the progress of the musical entertainment which had been prepared by the Toledo master plumbers.

fits of organization, which he skillfully set forth with many witty stories which brought laughter from the listeners.

Commodore John E. Gunckle, president of the Newsboys' Association, was introduced and entertained the visitors with a description of his work among the newsboys. Mr. Gunckle is a fisherman of considerable fame, judging from the number of fish stories he told of his early days.

President John F. Drees extended the association's thanks to the speakers and called Past National President A. C. Eynon, of Canton, Ohio, to the floor.

Mr. Eynon's remarks were filled with enthusiasm for association work, both local and national. He added to the



F. W. Sponseller of Canton, Newly Elected President Ohio Association.



John F. Drees of Cleveland, Retiring President, Now State Vice-President.



James A. Wood, Toledo, Newly Elected Vice-President Ohio Association.



John A. Brooks, President Toledo Association and Master of Ceremonies of Convention.

## Tuesday Morning Session.

The convention was called to order by State President John F. Drees, of Cleveland, at ten o'clock Tuesday morning. The large convention hall was full to overflowing, some two hundred and fifty master plumbers and their ladies being present.

After prayer by Rev. Samuel Charles Black, John A. Brooks, master of ceremonies, delivered the address of welcome, which received much well-merited applause.

Mayor Brand Whitlock, of national fame, was introduced and after giving the visitors a hearty welcome and a general idea of what to expect of Toledo, talked on the progress of plumbing and the benefits of organization.

Reverend Black asked for the floor and proved to his audience that he was rather well posted on the subject of bene-

already merry spirit of the visitors by giving a few of his latest and most original stories.

The meeting was adjourned at 12:30 for the purpose of taking the official photograph in front of the post office building.

The manufacturers who had exhibits at headquarters were kept busy explaining the merits of their various products up until time for the afternoon session at 1:30.

## Tuesday Afternoon Session.

The appointment of committees resulted as follows:

Credentials: M. R. Daso, chairman, Toledo; E. A. Kleine, Cincinnati; R. H. Desormoux, Springfield.

Resolutions: D. H. Roberts, Cleveland; H. P. Cahill, Akron; Wm. Haas, Dayton.



Gus Schlirmer of Monarch Brass Co., Frank Mauel of Mauel Bros. and J. A. Kiewel of Farnan Brass Co., Cleveland, front row.



Several of the Springfield Plumbers, Caught Before the Camera.



Messrs. Stevens of the Stevens Pig. Co., Erie, Pa., and Ike Newman of Kennedy Co., Cleveland.



Edw. Jacobs of North Cincinnati, With Clifford Schlemmer of Cincinnati.



1—James Leonard, 2—J. L. Patterson, 3—D. A. Carroll, All of Cleveland.



Grievance: William Roland, Youngstown; W. E. Bowers, Zanesville; Chas. L. Arting, Mansfield.

Press: Thos. Kewley, Toledo; C. C. Alexander, Fostoria; C. H. Saunders, Portsmouth; G. S. Freye, Toronto.

Auditing: Henry Schwartz, Cincinnati; James Heasly, Warren; Walter Kirn, Akron.

Tellers: Chas. Hoffman, Mansfield; Henry Smith, Youngstown.

Sergeants-at-arms: J. A. Wood, Toledo; Andrew Murphy, Cincinnati association; J. A. Mills, Canton association.

After the minutes had been read and approved, the secretary's report was read, which showed a gain in membership of three over last year, the present membership being 348.

At three o'clock adjournment was taken in order to make a visit to the four supply houses of the city. The delegates were taken in automobiles from the convention hall, and refreshments were served by the different supply men.

### Wednesday Morning Session.

At the morning session James Heasly, of Warren, was elected to replace C. F. Henry on the auditing committee,



Group of Ohio Master Plumbers and Ladies

Mr. Henry being called to Youngstown by a serious accident to a relative.

After the reports of the delegates, papers were read by Secretary Eb. Ellen from the apprenticeship committee.

The report of the sanitary committee was read by H. W. Eckhardt, of Cleveland.

An essay on "Public Confidence," by J. A. Brooks, Toledo, was read by J. A. Wood. One on "Obligation," by W. A. Gibb, of Canton, was also read by Mr. Wood.

Past National President A. C. Eynon read a special report on letters sent out to local associations by the national association on "Single Discounting."

A committee composed of Jacob Brenner, of Youngstown, W. T. McRoberts, Akron, and A. Boes, Toledo, was delegated to represent the master plumbers' association of Ohio at the funeral of the father of W. E. Girkins, of Toledo.

Adjournment was taken at twelve o'clock to meet in executive session at one-thirty.

### Thursday Morning Session.

D. H. Roberts, of Cleveland, chairman of the resolutions committee, reported on the work of the committee. The following resolutions were presented and carried:

To express the appreciation of the convention of the work of W. C. Groeniger, state plumbing inspector.

That the publication of the Ohio Master Plumber be continued under the management of the Board of Directors.

That recommendations be made to the National Association of Master Plumbers to arrange a meeting of state presidents and to allow time for such.

That consideration be given to the advisability of establishing a trust fund of \$100,000 to place the National Association of Master Plumbers on a firmer financial basis. This to be reported upon at the next convention.

That the appointment of D. H. Roberts, of Cleveland, as a member of the State Board of Health be recommended.

State Inspector of Plumbing W. C. Groeniger read a paper on "Sanitation in the State of Ohio," and talked at length on the subject, answering a number of questions pertaining to the bills and amendments before the legislature. In his remarks he commended the Schlemmer Bill, fathered by Representative Clifford Schlemmer, of Cincinnati. A rising vote of thanks was tendered Mr. Groeniger. The consideration of the bill was referred to the sanitary committee.

A resolution that the master plumbers of Ohio endorse and advocate one cent letter postage was also adopted.

A resolution of condolence for the death of A. T. Hill, of New York, former national president, was adopted.

### Thursday Afternoon Session.

The nomination of F. W. Sponseller, of Canton, for president was made by J. A. Brooks, of Toledo, seconded by John J. Voegelpohl, of Cincinnati, and he was duly elected.

James A. Wood, of Toledo, was nominated for vice-president by D. H. Roberts, of Cleveland, seconded by Thos. Kewley, of Toledo. The secretary cast a unanimous vote for Mr. Wood.

Upon motion of A. C. Eynon, of Canton, a unanimous vote to retain Eb. Ellen as secretary-treasurer for the ensuing five years was cast by Vice-President Wood. Second was by Mr. Morgan, of Cincinnati.

Geo. Cramer, of Canal Dover, and Jos. L. Dyer, of Cincinnati, were elected delegates to the National convention at Philadelphia, with John Schneider, of Dayton, and John A. Brooks, of Toledo, as alternates.

John F. Drees, of Cleveland, was elected national state vice-president.

An expense budget of \$100 for attendance at the National convention was voted.

The trade papers were commended for their efforts in behalf of the craft and a vote of thanks was tendered them for their efficient and uplifting work.

The competition for the 1914 meeting lay between Cincinnati and Akron. Invitations from the mayor and the president of the hotel men's association of Cincinnati, with statis-

tics and fake telegrams, turned the tide in their favor with a vote of 45 to 14.

After adjournment the members and delegates were met by automobiles and conducted through the plant of the Owen Bottling Machine Works.

#### Entertainment.

The entertainment features of the convention will long be remembered by all in attendance. From the time of the gathering for the informal reception in the Boody House parlors on Monday evening to the close of the convention all were kept busy following out the well arranged entertainment program.

On Tuesday afternoon the ladies in attendance were conducted on a sight-seeing tour, which included a visit to the art museum and the post office building.

On Tuesday evening the ladies and their escorts were entertained at a theatre party at the Auditorium theatre, while the unattached gentlemen were entertained at a theatre party and smoker at the Empire theatre, given jointly by The National Supply Co., The American Plumb-

ners' Supply Co. and The Ohio Plumbers' Supply Co., all of Toledo.

Wednesday morning the ladies were taken on a shopping tour, which included all of Toledo's big stores. They were served with luncheon at the Elks Club, after which they were taken on a tour of inspection through the jail and court house buildings and other interesting places.

The ball held at Schmackner's Hall on Wednesday evening was an enjoyable affair, there being more than two hundred in attendance. Dancing and cards, with a ten o'clock supper, occupied the evening.

On Thursday morning the ladies were entertained at the Maumee River Yacht Club, where they were served with luncheon at two o'clock, and spent the afternoon at cards and visiting about the club.

On Thursday night the visitors were entertained at a theatre party at Keith's Theatre.

#### Convention Notes.

On Thursday morning the tired-out visitors were awakened from their slumbers at about 1:30 by a fire alarm turned in as a result of a slight fire in the basement of the hotel. The fire was of no consequence and did no damage to the hotel, but sufficient smoke circulated into the upper halls to cause considerable excitement.

D. H. Roberts, of Cleveland, was seen hurrying down the hall to locate John F. Drees, to explain that it would not be

necessary to use the fire escape. J. Murphy, Ray Hillenbrand and John J. Vogelpohl, all of Cincinnati, spent considerable time convincing the ladies that the fire was only smoke.

The Central Brass Mfg. Co., Cleveland, O., held open quarters in a room on the parlor floor and displayed their complete line of brass goods. V. M. Mahler, assistant sales manager, was in charge of the exhibit and was ably assisted by the Ohio representative, W. E. Edwards.

The Leader Iron Works, Decatur, Ill., exhibited their double-acting hand force pump in the hotel lobby. W. V. Pettit was in charge of the exhibit and was ever busy explaining the merits of the Leader products to the listening plumbers.

The H. Mueller Mfg. Co., Decatur, Ill., set up a very attractive display of their high-grade brass goods, which attracted the attention of all who came within sight of it. J. H. McCormick and Ernest B. Cameron were in charge of the exhibit.

The Peerless Selling Co., of Evansville, Ind., was very well represented by Charles G. Perkins, who was on the ground early to welcome his many friends as they arrived, and re-



At Toledo Convention, February 19th, 1913.

mained to bid them farewell as they departed for home.

The Mouat-Squires Co., Cleveland, O., was very ably represented by A. W. Stone, who had display space in the hotel lobby and passed out circular matter on their vapor heating system.

The Bowlus Mfg. Co., Springfield, O., was represented by Mr. Bowlus in person, who explained the many points of merit embodied in his "Royal" seat-operating closet combination.

The Vaile-Kimes Co., Dayton, O., had a very attractive display in the center of the hotel lobby in the form of motor-driven pumps that were connected up for the purpose of giving practical working demonstration. H. A. Stamper and R. L. Tansel were in charge of the display and never seemed to tire of explaining the finer points of their line.

The Columbus Brass Co., Columbus, O., displayed their metal tank street combinations in both oak and white finish. E. N. Skinner was in charge of the exhibit.

The Geo. J. Roberts Co., Dayton, O., exhibited two types of their motor-driven pumps under exact working conditions, which enabled the interested plumbers to estimate the quality of the pumps at a glance. John C. Jameson and Ed. P. Sheeran could be found within easy reach of their display at any time during the convention, for the purpose of giving advice and suggestions on the question of water supply.





Some of the Ladies Who Attended the Convention

The Acme Specialty Mfg. Co., Toledo, O., held open house during the convention and used automobiles for the purpose of conducting plumbers to and from their factory.

Thomas E. Bullion, of the Humphrey Co., Kalamazoo, Mich., was ever on the job and conducted many of the master plumbers to the showrooms of the Standard Mfg. Co., where he had a heater arranged for demonstrating purposes.

H. F. Abers, sales manager for The Globe Brass Mfg.



Top Row, Left to Right: Miss M. V. Girkins, Toledo; C. S. Doyle, Minneapolis; Mrs. N. S. Larson, Toledo; J. A. Wood, Toledo; Emerson Girkins, Toledo; G. N. Lee, Cleveland. Bottom Row: C. L. Bryant, Cleveland; Mrs. Wm. Girkins, Toledo; M. V. Girkins, Toledo; Mrs. J. A. Wood, Toledo; Miss Elizabeth Whitehead, Toledo; N. S. Larson, Toledo.

Co., Cleveland, and P. B. Rutledge, general traveling representative for the company, were present.

Thomas Boss, of the Pittsburgh Water Heater Co., Pittsburgh, Pa., was very much in evidence during the entire meeting and was kept busy giving the glad hand to his many friends. He passed out handsome leather-bound note books.

Gus Schirmer, of the Monarch Brass Co., of Cleveland, greeted his many friends at the convention headquarters.

Ike Newman, of The Kennedy Co., Cleveland, brought

his usual amount of wit and humor with him and was received most cordially by his many friends. S. E. Ensign, of The Kennedy Co., was also present.

James Leonard, of the Sanitary Co., Cleveland, seemed to take great pleasure in meeting his many friends and explaining just how glad he was to be present.

H. E. Deney, of The Bishop-Babcock-Becker Co., Cleveland, passed out the glad hands in quantities.

The local supply men did their share toward showing the Ohio master plumbers what Toledo hospitality really is. Among those most in evidence were: H. S. Gardiner, J. B. Feely, A. P. Mager, and R. W. Lang, all of the National Supply Co. From the American Plumbers' Supply Co. were Chas. J. Merickel, F. W. Terwilliger, R. Deland and Geo. M. Kring. From the Ohio Plumbers' Supply Co., W. H. Roemer and Frank Feely were very much in evidence.

Adam Welker and C. E. Webb, of The Welker Supply Co., Cleveland, were present.

The Honeywell Heating Specialty Co., Wabash, Ind., was most ably represented in the person of C. E. Jones, who conducted parties of his friends and acquaintances from among the master plumbers to the National Supply Co. showrooms, where he had one of the Honeywell generators arranged for practical demonstrations.

Jas. P. Shoop, of H. B. Smith Co., Westfield, Mass., shook hands with many old-time friends in the heating business.

S. S. McDonald, of Kieley & Mueller, of New York, circulated among many friends of the heating trade.

C. J. Moody, of Mustee Water Heater Co., Cleveland, was present.

Bullard Specialty Co. was represented by M. A. Morris, who handed out very attractive souvenirs in the form of cigar cutters, put up in leather cases.

The Bryant Heater & Mfg. Co., Cleveland, was represented by C. G. Bryant in person.

The Farnan Brass Works, of Cleveland, was represented by S. Resick and J. A. Kiessel.

Otto Hahn, of Louis Lipp Co., Cincinnati, was present.



R. L. Tanser and H. A. Stamper of Valley-Kimes Co., Dayton.

Leaving Convention Hall to Visit Supply Houses.

Visitors to National Supply Co.

Master Plumbers en Route to Supply Houses.

Chas. G. Perkins of Peerless Selling Co., Evansville.

## LIST OF DELEGATES.

Akron: H. P. Cahill, W. F. Kern, C. W. Hoffman.—Ashtabula: M. Burroughs, F. R. Gravatt.—Alliance: J. O. Ellis, J. F. Beal, Clarence McDonald.

Bellefontaine: Wm. Faulk, Robert Davidson.—Bellaire: J. R. Fitton.

Cambridge: J. F. Orr.—Canal Dover: Geo. Kreamer.  
Canton: Geo. Schumacher, Jonas Mills, H. F. Trushel, W. A. Gibb, A. C. Eynon.

Cincinnati: Jas. J. Dyer, Ray Hillenbrand, Jerome Murphy, Edward Frank, Andy J. Murphy, E. H. Morgan, Ed. Kleine.



W. C. Groeniger, Ohio State Plumbing Inspector, and Clifford Schlemmer of Cincinnati.

Cleveland: Geo. J. Werhle, Eb Ellen, E. E. Hill, H. W. Eckhardt, Thos. P. McDermott, A. W. Southwell, A. L. Decker, F. E. Manney, D. H. Roberts.

Conneaut: Frank Kehoe.—Coshocton: Chas. Heiman.

Dayton: Wm. Haas, Harry Danner, John Schneider.—Defiance: Thos. H. Cary.

Fostoria: C. C. Alexander.

Lima: C. M. Wood, C. C. Cowles, H. B. Chase.

Mahoning Valley: A. G. Weinberg, James Heasley, J. C. Cumminskey, Wm. Rowland, Harry Smith.—Marion: W. E. Frye.



John C. Jameson and Ed. P. Sheeran of the Geo. J. Roberts Co., Dayton, O.

Mansfield: W. E. Antrican, Chas. L. Arting, Geo. Friehten, Chas. Hoffman.

Portsmouth: Edw. H. Saunders.

Middletown: W. H. Drayer, L. M. McClain.

Ravenna: A. Jensen.

Sandusky: Herman Appell.

Springfield: Chas. E. Ridenour, F. Krumholz, R. H. Desormoux, W. D. Folrath.

Steubenville: Geo. S. Freye, Jas. H. Frazer, Jas. Longacre.  
Toledo: John A. Brooks, Wm. E. Girkins, Wm. G. Wacker, Thos. Kewley, Chas. O'Neil, John J. Schelling, Geo. A. Jackson, Adam Boes.—Toronto: Geo. S. Frye.

Zanesville: W. E. Bowers, J. W. Clark.

Other committees and the board of directors are:

Apprentice: E. M. Borroughs, Ashtabula; Andrew Jensen, Ravenna; J. T. Beal, Alliance.

Essay: F. C. Clement, Dayton; C. C. Alexander, Fostoria; W. H. Drayer, Middletown.

Sanitary: Edw. W. Morgan, Cincinnati; John A. Brooks, Toledo; Charles Wilson, Youngstown.

Members of Board of Directors, (in addition to officers): Harry S. Smith, Mahoning Valley; Chas. Hoffman, Mansfield; J. J. Vogelphol, Cincinnati.

### DENVER ALDERMAN WANTS REGULATION ON BOILERS AND FURNACES.

Alderman McLane, of Denver, has up before the city council an ordinance regulating the installation of boilers and furnaces, which is being discussed in connection with the smoke abatement question of that city.

Mr. McLane has devoted considerable attention to the subject as handled in Munich and Berlin, Germany, and other cities, where he says that such matters are given much closer attention than in our country.

He proposes the appointment of a heating inspector whose duty it will be to examine all plans and specifications for buildings to be erected in the city, refusing permits to all whose specifications do not provide for the proper capacity in boilers, furnaces, radiation and chimney area. It will also be provided by the bill that a thorough inspection of such buildings during all stages of construction is to be made. Elaborate rules for grate area and chimney surface are provided and exact reports of these matters are to be required of all architects and builders contemplating new buildings. Details of sizes of chimneys as required for proper draft in residences and other buildings are given. The ratio of size depending upon the number of rooms in the building, is the proper measure of the draft required for furnace or boiler.

This seems to be one of the first attempts made by any city to regulate such matters by ordinance. "Domestic Engineering" would be glad to know of any ordinance in effect along this line or contemplated.

Wilmington, Del.—T. T. Weldin & Son have their share of good work on hand. Among other contracts is one for the plumbing and vapor heating installation in the new Odd Fellows' Hall, at Tenth and King Streets, this city; plumbing and steam heating in No. 30 School, at Concord Avenue and Boulevard, and the plumbing work in some twenty-five new residences.

Lapwai, Idaho.—The contract for the installation of a plumbing and heating system in the Indian sanitarium has been awarded to Charles Hahn, the consideration being \$5,559.

Rapid City, S. D.—Andy Traut and his son, Earl A. Traut, have become owners of the Sweeney plumbing and steam-fitting establishment. The new firm will be styled the Rapid City Plumbing Co.

Phoenix, Ariz.—Dale and Sattler, two experienced plumbers, have taken over the retail business of J. H. Mulrein at 440 W. Washington Street, and will conduct an up-to-date plumbing business at that address.



# Minnesota Master Plumbers at Minneapolis

First State Convention in Which Minnesota Plumbers Outside of Twin Cities Were Present, Held February 19 at Nicollet Hotel

**T**HE Minnesota Master Plumbers' Association assembled for its eighteenth annual convention in the Nicollet Hotel, Minneapolis, on Wednesday, Feb. 19. The early hours of the morning were spent in getting acquainted with each other, this being the first convention in many years at which there were present any except master plumbers from the Twin Cities; and it was certainly fine to see the splendid representation from the various parts of the state.

In one particular the members were very fortunate, in that the Wisconsin state association, in its effort to assist in the good work, had delegated two good men to make the trip to Minneapolis, and they were right on the job at all times, welcoming the visitors, meeting their old acquaintances, giving words of wisdom to individuals and small groups, and winding up with several rattling good talks which went a long way towards making the

## The President's Report.

It being a somewhat lengthy document, it will be impossible at this time to give more than a mere outline of the contents. A review of the condition of the association at the time President Hughes was elected was followed by a detailed report of his work along organization lines during the year, showing that while there were a few members in the organization from outside of the Twin Cities, they were so few and so little interested that the majority of them had not paid any dues for several years, notwithstanding which fact they were still carried as members. From various sources, a list was compiled of the master plumbers throughout the state, and to each of them was sent letters and booklets from time to time giving reasons for the organization and the need of the support of every man in the trade if it were to be made a success. These letters resulted in the addition of some



W. W. Hughes, President, Minneapolis.



P. J. Gallagher, Second Vice-President, Faribault.



D. R. Black, Treasurer, Duluth.

Three Officers of the Minnesota Master Plumbers' Association.

delegates enthusiastic for the proper organization of the entire state. These men were Geo. F. Reeke, of Green Bay, former president of the Wisconsin association, and Jacob Schuh, of Milwaukee, a director.

## Morning Session.

Shortly after ten o'clock the convention was called to order by President W. W. Hughes, who appointed Fred Yost, of Minneapolis, sergeant-at-arms.

A credential committee was appointed, consisting of M. F. McLaurin, of Mankato; Carl Schirmer, of Hibbing, and D. R. Black, of Duluth.

A resolution committee was appointed, consisting of Frank Farrell, of Duluth; John P. Green, of Albert Lea, and Roy Harker, of Duluth.

An auditing committee was appointed, consisting of Dell Blethen, of Minneapolis; H. H. Strand, of Benson, and Michael Boylan, of Virginia.

The minutes of the last state convention were then read by Secretary Harvey, of Minneapolis, and the report of President Hughes was read by Secretary Worrell, of the Minneapolis association.

new members for the organization, but still the feeling was manifest that it was up to the association to do something for the trade, the members little realizing that the association is only what its members make it. The first need is members and after that come the results.

Following the letters, trips were made to various towns in the state, where meetings were held in the interest of the association, and a number of new members gained in this manner. Lack of money and sufficient time prevented more of these trips, but with the funds now at hand, a number of trips will be made, and it is expected during the year to see the membership greatly increased.

Some reference was made to certain bills now before the Minnesota legislature, and it was afterwards decided to appoint a legislative committee to investigate these bills and act accordingly.

The cost of doing business, trade protection, the division of the state into districts, and many other topics were considered in the president's message; the whole being referred to the incoming officers.

The reports of the secretary, S. B. Harvey, of Minneapolis, and the treasurer, Arthur Doyle, of St. Paul, were then read and accepted.

The meeting then adjourned for dinner and was reopened at two o'clock in the afternoon.

#### Afternoon Session.

Addresses were made by Geo. K. Belden, president of the Minneapolis association; Frank Farrell, of the Duluth association; Louis Nienaber, of the St. Paul association, and by a number of the other delegates.

During the afternoon there was considerable discussion on various propositions, some of which were introduced from the floor and some as a result of the report of the resolution committee, which was very ably presented by Frank Farrell, of Duluth.

The association then proceeded to the election of officers for the year 1913, with the following results:

President—W. W. Hughes, Minneapolis.

First vice-president—Louis Nienaber, St. Paul.

Second vice-president—Patrick Gallagher, Faribault.

Treasurer—D. R. Black, Duluth.

Secretary—S. B. Harvey, Minneapolis.

The Duluth association asked that Duluth be selected for the next convention, and this was decided upon.

The convention was then brought to a close, immediately following which the delegates partook of a supper which had been provided for them, after which adjournment was taken to the rooms of the Builders' Exchange for an evening of entertainment.

#### Smoker and Entertainment.

For the evening meeting there were plenty of "smokes," an illustrated lecture by Mr. Dillon, of the American Radiator Co., songs and instrumental music by the Southland Quintette, and a demonstration of athletic ability of two artists of renown, this terminating in a "draw."

The Wisconsin Plumbers' Mutual Liability Insurance Company's plan was thoroughly explained by Jacob Schuh, of Milwaukee, and it was decided that it would be advisable for the executive and legislative committees to confer with the members of the state legislature so as to secure, if possible, the insertion of a clause that will make it possible to organize a mutual company in Minnesota, should the compensation code pass the legislature at this session.

Another idea which seems to have merit is that of securing the membership and affiliation of the master plumbers in North Dakota in the Minnesota association, for the reason that all of the materials used in that state come from either Duluth or the Twin Cities, and it is thought that by working together they could be of service to each other.

W. R. Young, registrar of the Minneapolis City Water Department, extended a cordial invitation to all of the delegates and guests to visit the new filtration plant, it being the most up-to-date of its kind in the world and one that is well worth a visit. A number of the delegates availed themselves of the opportunity.

#### Convention Notes.

During the closing event of the evening, our good friends, Ole Bjorkman, W. J. Topley and Bill Nary, were so close to the ring side that they narrowly escaped being brought into the scrimmage; it was noticeable, however, that they stuck right by the ship.

A word of caution. Should any of the delegates wish to imitate the "colored gent" who gave the combination cigar-smoking, singing and talking stunt, it would be well for them to first provide themselves with an asbestos tongue.

Several of the old war horses were on the job, including J. V. Cunningham, of Winona, who is still doing business there; John McQuillan, of St. Paul; J. L. Hague, of Min-

neapolis; Frank Schuler, the only retired master plumber in Minneapolis; and Al. Zimmerman, who is now the plumbing inspector in the Health Department in the city of Minneapolis.

The H. Mueller Mfg. Co. of Decatur, Ill., was represented by the Minnesota salesman, E. C. Ince.

Two representatives of the Glauber Brass Mfg. Co. of Cleveland were present, Fred P. Hale and W. Rothman, the latter being the Pacific Coast salesman.

Thos. F. Mangan of the Best Mfg. Co., Cleveland, manufacturer of plumbers' specialties, was present.

The following were present at the convention as delegates:—

Albert Lea, John P. Greene. Austin, W. C. Mullen.

Benson, H. H. Strand, Bemidji, L. P. Eckstrum.

Duluth, G. Silverness, Roy V. Harker, James Gorman, J. J. Mullen, D. R. Black, E. S. Farrell, Fred DeBor, E. J. Ketchum, Chas. Erickson, Chas. Iltes, Frank M. Farrell, T. Gleason.

Faribault, P. J. Gallagher.

Hibbing, Carl H. Schirmer. Hill City, Wm. H. Gauswitz, Dee Brown.

Mankato, P. H. McGraw, M. F. McLaurin. Moorhead, Geo. J. Thompson.

Minneapolis, Mark Sawyer, J. D. Keefe, N. P. Nelson, J. A. Shogren, John Hughes, Wm. Nary, C. J. Maurud, W. W. Hughes, L. L. Hughes, L. R. Ellis, L. H. Johnson, H. S. Thompson, Fred Bartel, S. B. Harvey, W. C. T. Hamilton, L. J. Hasey, Geo. K. Belden, L. P. Worrall, S. B. Wilson, Fred J. Yost, Emil E. Erickson, F. H. Schuler, Albert Zimmerman, O. A. Blethen, Robert Utter O. L. Bjorkman J. L. Hague, Robert Simpson, M. P. McInerny, S. R. Fager, A. F. Crounse, Dell Blethen.

Owatonna, Jacob Sytes.

Red Wing, James H. Doyle.

Saint Peter, Al. J. Potts.

Shakopee, Henry Mergens.

Saint Paul, Paul L. Chapel, Louis Nienaber, Carl P. Dahlby, John E. Holt, L. J. Royzcki, John McQuillan, T. E. King, Frank King, W. F. Miller, Louis H. Peters, W. J. Topley, R. N. Brooks, Herman Nelson, J. W. Martin, L. H. Zuehls, H. W. Bowe, C. J. Conroy.

Winona, Thos. H. Botham, J. V. Cunningham.

Willmar, Ben Benson. White Bear, Frank Lonergrin.

Virginia, Michael Boylan.

Green Bay, Wisconsin, Geo. F. Reeke.

Milwaukee, Wisconsin, Jacob Schuh.

#### MISSOURI PLUMBERS ELECT OFFICERS.

At the Missouri State Convention at Joplin, on February 25th, the Master Plumbers' Association elected G. A. Wood, of Springfield, as president; M. P. Connor, of Kansas City, first vice-president; H. C. Moore, of St. Louis, second vice-president; and J. P. Carroll, of St. Louis, treasurer. About fifty delegates were in attendance at the meetings in the Commercial Club rooms. It was decided to hold the next meeting at St. Louis.

#### SOUTH DAKOTA CONVENTION.

The second annual meeting of the Master Plumbers' Association of South Dakota was held in the Commercial club rooms in Huron, S. Dak., on Thursday, Feb. 20th.

The secretary's report showed an increase of membership of twelve during the year just past, the entire membership in the state now being twenty-six master plumbers who represent the principal cities of South Dakota.

The meeting was a very interesting and instructive one. While the association has been formed only a little over a year, the officers and members have been active and much good work has been accomplished.

Officers for the ensuing year were elected as follows: president, Mr. Skiff, Brookings; vice-president, D. J. Arnold, Belle Fourche; secretary and treasurer, C. E. Dresselhuys, Aberdeen.



# Nebraska Convention at Fremont Last Week

The Two Days' Meeting Was the Most Enthusiastic  
Yet Held by This Association, Now Four Years Old

**T**HE fourth annual convention of the Nebraska Master Plumbers' Association was held at Fremont on Thursday and Friday, February 20 and 21. Headquarters were established at the Eno Hotel and the meetings were held in the Masonic Hall.

Never before has a convention of Nebraska plumbers been held where more of good fellowship was shown; all came with the idea that much good work was to be done.

## Thursday Morning Session.

State president J. C. Bixby of Omaha called the convention to order in open session at eleven o'clock. He spoke of the early days when Fremont was on the old Oregon Trail, a long day's journey from Omaha; now the trip can be made in an hour. The early settlers traveled over the Trail to better the conditions of those days, and that, he said, was the object of the present convention.

Charles E. Abbott, city attorney of Fremont, welcomed the delegates and visitors in the absence of Mayor Wolz. He said that he was well aware of the work the association had to do in securing equitable freight rates and the enactment of a suitable state plumbing law that would protect the public against disease. He hoped that the bill now before the state senate would become a law and stated that the association could rely on Mayor Geo. F. Wolz, who is a state senator, to give it all the support in his power.

John Morrissey, president of the Omaha association, replied to Mr. Abbott in a few well-chosen words. He stated that the great needs are co-operation, education and the

press, and that more time should be devoted to these than many existing evils may be overcome.

The report of Secretary J. B. Coningham of Omaha was read and referred to the auditing committee. This report showed 79 members when the present officers took charge and 98 at the present time, with some applications still to be acted on.

The report of Treasurer F. W. Barclay of Beatrice, after being read was referred to the auditing committee.

President Bixby, after appointing L. J. Larson of Fremont and Harry McVea of Omaha as sergeants-at-arms, announced the following committees:

Credentials: Wm. Bellamy, Omaha; J. P. Cox, Lincoln; F. W. Barclay, Beatrice.

Auditing: E. P. Dussell, Columbus; Leslie Porter, Aurora; E. J. Long, Grand Island.

## Thursday Afternoon Session.

At the afternoon session W. T. Green of South Platte was elected to membership, by suspending the rules.

During the executive session which followed, an address was made by E. J. Long of Grand Island, entitled "Contract Work," which will be printed in a later issue.

## Friday Morning Session.

At the open meeting an address on "Business and Finance" was delivered by E. R. Gurney, of Fremont, vice-president of the First National Bank. He was generously applauded



Members of Nebraska Master Plumbers' Association in Convention at Fremont, February 20 and 21, 1913.

and a vote of thanks was extended to him for his efforts. In a later issue this paper will be published in full.

Following Mr. Gurney, President Bixby introduced B. Grunwald, of Omaha, who spoke on the subject of "Sanitation and Sanitary Science":

Paper by B. Grunwald.

**H**ISTORICALLY, the plumber is primarily one who works with lead; but this definition would be a misnomer applied to the trade today and especially to the merchant plumber. Plumbing of today, is defined as the art of installing in buildings, the pipes and apparatus for introducing the water supply and removing the foul wastes. To remove the foul wastes from the buildings, two necessary sanitary functions have to be performed. First, the laying of sanitary drains, soil, waste and ventilation pipes; second, the setting of the plumbing fixtures. One is as essential as the other to obtain perfect results.

In the installation of the sanitary drains, waste and ventilation pipes from the street sewer, cesspool or septic tank, it



Front Row, Left to Right: President G. H. Wentz, Lincoln; Vice-president F. W. Barclay, Beatrice; H. H. Kruger, Omaha, Executive Clerk J. B. Coningham, Omaha. Standing: J. C. Bixby and Geo. Morris, Omaha; E. P. Dussell, Columbus, Wm. Bellamy, Omaha.

is up to us sanitarians to see that it is properly done and done in such a way that the sewer air will have a free and unobstructed circulation from the points mentioned through the waste and ventilation pipes through the roof of the building. The ventilation pipes are as necessary in a building as the waste pipes and without them the seals of the traps are broken either by pressure or syphonage and then the sewer air has a free outlet into the rooms and buildings.

Sewer air is the air in drains and waste pipe and contains carbonic acid gas, marsh gas, sulphuretted hydrogen, and a large percentage of decaying organic matter and constantly changes in composition, even in the same drain and is very injurious to the health of the public who breathe it. Many cases of malaria, diphtheria and typhoid fever are the results and can be laid to defective plumbing. Our state institutions in the past have given us ample proof to this effect.

Ventilation being necessary and essential for waste and drains to prevent sewer air from entering into a building, it is our duty to see that the same are properly installed to protect the health of the public, and very often it is found necessary to do it against their own will, as they would rather sacrifice their health than to pay a reasonable price to have a sanitary job of plumbing installed. This is especially true of small towns and farm houses. There being no plumbing regulations in existence, the plumbing is generally installed without ventilation of any kind, and at times, without traps.

At our last state convention, it was brought before the delegates of our body, that in some of our largest cities, the city officials were not in favor of enacting laws and regulations for the proper installation of plumbing, and the convention at that time took such action to see what could be

accomplished to have a state law passed to regulate the installation of plumbing throughout the whole state, cities and towns. This has, to a certain extent, been accomplished, through the faithful and good hard work of our officials of the state association, but each and every member of our organization should give our officers as much assistance as possible and use his own personal influence and effort with the state representatives and senators and see that this plumbing bill will be passed through the house and senate. However, it will be impossible to get laws that will regulate the installation of plumbing in small towns and villages.

I want to appeal to our members that live in localities where laws and regulations for the installation of plumbing are not in effect, to set a good example and install plumbing in the most sanitary way and educate the public to this effect.

Not only is ventilation necessary directly in connection with drain and waste pipes, but it is also as essential to ventilate the rooms where the plumbing fixtures are installed. The fixtures, especially the closets, become polluted and if there is no ventilation of air in the room they will throw off these dangerous gases, and it is not necessary for mechanical or bacterial analyses, as upon entering convincing evidence exists of the foulness in such rooms. Each toilet or bathroom should have a window leading to the outside atmosphere, and in addition, a register face in the wall near the water closets, and the same to be connected to a galvanized iron or tin duct running to the outside atmosphere. The architects do not give this matter due consideration and very often place toilet rooms in such places in a building where outside ventilation cannot be very easily obtained, and as a general rule, it is entirely omitted. In such cases, it is up to us to call the attention of same to the owner and explain to him the necessity of having a toilet room properly ventilated and in every case some means can be found to accomplish this. No matter how sanitary and perfect we install the waste and ventilation pipes or how well we ventilate our rooms, it would be all for naught, did we not install the plumbing fixtures properly.

First of all, the fixtures must be sanitary in themselves, and to be this must be made of the very best of non-absorbent material. Did any of you ever have a customer come to your store and ask how good a water closet he can buy? On the contrary, he asks you how cheap a closet he can buy; they all look alike to him outside of the price.

It is up to you, Mr. Sanitarian, to show your science and salesmanship at the same time. Sell your customer the best and most sanitary fixture made, and get a reasonable price for them. You not only live up to your calling, but do a great favor to your customer, and every time make a steady customer of him. It is good business policy to buy your goods and fixtures as cheap as possible; but it would be very poor business and judgment on our part to buy unsanitary fixtures on account of cheapness in price. In purchasing our material and plumbing fixtures, we must ask the jobber or manufacturer to guarantee their goods to us and guarantee them in such a way that in case they prove defective and unsanitary, we can replace them with proper goods free of charge to the owner, and the whole expense to be borne by the jobber or manufacturer.

The traps to which the fixtures are connected are the most important feature in sanitation. We must select traps made of good and substantial material. They must be both air and water tight, and at all times, install such traps which will thoroughly flush themselves with one discharge of the fixture to which they are connected. Much room for improvement is left in the manufacture of sanitary plumbing fixtures. This is especially true of the overflow and standing waste of lava-



tories and bath tubs. This portion of the fixture is a dirt catcher and no provision is made to clean and flush it.

The urinal, in years past, has been the most unsanitary fixture the plumbing fraternity had to deal with; but in late years great improvements have been made and today sanitary fixtures can be obtained. The vitreous syphon jet urinal bowl, made of absolutely non-absorbent material, with integral trap, when properly connected to an automatic flush tank, is a sanitary fixture, and the cast iron enameled trough urinal, when properly connected, is a sanitary fixture.

With such sanitary fixtures as these on the market, the architects today undertake to build urinals themselves, and this is especially true in our public schools. They will specify that the urinal will be built according to details, out of concrete and cement. This kind of fixture, no matter how good it is built, is unsanitary, as the material it consists of is porous and will absorb organic fluid. In our schoolhouses, the best sanitary plumbing should be installed regardless of expense, and when a member of this organization is forced to install such an unsanitary fixture he should report the same to our state president, and he, through the state executive board, report the same to the state health department.

#### Paper by F. W. Barclay.

**T**HE selection for a talk, "Courtesy in Business, Its Money Value," was assigned by your president to me. This is a subject that I feel deserves more time and thought than I have been able to give to it.

I prefer to make a few observations for the members' consideration, trusting their criticism will be of greater worth than what I may offer.

Primarily, courtesy should begin at home; it's a good habit and one worth cultivating. Elbert Hubbard once said, "The man who indulges in either grouch or graft is a goner," a self-evident proposition. One of the first objects of the master plumbers' organization is: to promote harmony among the members of our craft, create a more fraternal spirit, to the end that as a harmonious unit, we obtain the greatest object sought, that of uplifting our trade or profession, gaining the confidence of and serious recognition from the public of a craft as merchants and men. A craft that stands second to none, since on the plumbers' honesty and skill rest the health and attendant happiness of communities.

Courtesy should not begin and end with our state conventions, but carried home, among our members, a harmonious



John Morrissey, President of Omaha Association, and E. W. Ryks of Omaha.

B. Grunwald of Omaha, Whose Paper Appears Elsewhere.

J. C. Bixby, of Omaha, Retiring President of the Nebraska Association.

J. B. Coningham, Executive Clerk of the Nebraska Association.

John J. Ostronic and Gus Blase, Omaha, in Front of the Y. M. C. A. Building.

to force the architects from their position and make them change their specifications and install a sanitary fixture.

An individual member or contractor very often has to submit to such conditions; but through our state organizations, we can very often assist in changing this condition to the extent of installing absolutely sanitary fixtures.

#### Friday Afternoon Session.

At the executive session the following officers were elected:

President, G. H. Wentz, Lincoln; vice-president, F. W. Barclay, Beatrice; treasurer, Henry Kruger, Omaha; executive clerk, J. B. Coningham, Omaha.

The board of directors consists of G. H. Wentz, Lincoln; F. W. Barclay, Beatrice; Henry Kruger, Omaha; E. P. Dussell, Columbus; Geo. Morris, Wm. Bellamy and J. C. Bixby, the last three of Omaha.

While the afternoon meeting was in progress J. C. Bixby, retiring president, was called from the room and during his absence the association voted to present him with a Master Mason ring, as a token of appreciation for faithful service performed.

Resolutions of sympathy on the deaths of F. C. Phillips of Lincoln, Milton Free of Omaha and Robert Parks of South Omaha were ordered sent to the families of the deceased.

At the close of the business session F. W. Barclay of Beatrice read an interesting paper on "Courtesy in Business," which follows:

working organization can best be obtained where good fellowship prevails.

The contrary spirit provokes an antagonistic feeling. The hostile criticism of a competitor creates ill-will, making it impossible to get together. If one hears an unkind remark, it should go no further, for if repeated it grows and makes matters worse. This day and age has no place for the grouch or knocker.

Again, if a criticism reaches a customer it raises a doubt in his mind as to the integrity of the trade.

A hearty, well-meant congratulation to a successful competitor when he lands a job is a visible asset, making both feel better.

Another courtesy is comparing notes and data of the manner of installation, the worth or value of goods and fixtures of the various makes, and the quality of the same. This tends to educate as well as elevate, brings about the use of better labor and material, and will have a beneficial effect in discouraging the manufacture and sale of inferior and unfit goods.

It, moreover, brings about a healthier competition when plumber and public alike understand the use of better things. A pointer to a member is of much more worth, than waiting and gloating over a mistaken or faulty installation, hoping thereby to profit by the errors of others. It injures the business in the long run.

The asset of greatest value is a continuation of the friend-

ship and good will of the consumer, who gave the other fellow his job. Be a good loser; even though you may feel you were not given due consideration, it profits nothing to get on a grouch. He may have the best of reasons for trading with the other fellow.

But should he have other business come up, or any of his friends with whom he has influence, your own deportment will be a factor in governing his treatment of you. Courtesy will hold his friendship and esteem, and perhaps get you business with him.

It may not be out of place to suggest that the frequent statement that the successful fellow, which seems in my experience to be the case always, if we believe all we hear, has taken the job below cost. It would seem, if we had a code of ethics that forbade this, it would be a step in the right direction.

Courtesy in our dealings with the wholesaler is worth as much as with ourselves. You make no sacrifice of your independence, but strengthen yourself, and in the end receive more consideration. With the journeyman firmness is desirable, but an unfailing courtesy gains the good will of the men.

The railroad companies find it necessary to publish an order requiring uniform politeness to all patrons, by their employees. They appreciate its value, why should not we profit by the experience of others? Our friends, the wholesale houses, find it profitable to work in complete harmony, why not we? Our interests are mutual. A discourteous reply to a layman who asks what appears to be a foolish question, has cost many a man friends and business; above all things keep an appointment, the discourtesy is obvious.

I submit, then, if all things, I suggest along the line of courtesy, good will and unity are good for the plumbers; they have an intrinsic value; they must be profitable in business.

#### Banquet Friday Evening.

The banquet was held in the Masonic Hall at seven o'clock, about seventy-five members and guests being present.

After a delightful repast, President Wentz introduced T. L. Matthews of Fremont, who acted as toastmaster. In introducing the first speaker, Walter J. Cattin of Omaha, the toastmaster inferred that a museum was being started by the speaker, and Mr. Cattin told how he had gotten the reputation and that he would take anything in payment of bills.

Frank Stuart of North Platte was the next speaker, and told a story of a man who contracted for a tombstone, which was not to be unveiled until his death. When the stone was erected over his grave these words appeared: "I expected this, but not so soon."

B. Grunwald extended a passing invitation to all to be present at the meeting at Omaha next year. He was followed by J. B. Coningham, who spoke for the ladies.

Mayor Geo. F. Woltz told of being skeptical when he first looked over the proposed new state plumbing law, but after studying the matter found that such a law is necessary to

the health of the citizens, and that the sentiment among the legislators is increasing in its favor every day.

E. P. Dussell of Columbus spoke along somewhat similar lines, and was followed by J. B. Coningham of Omaha and President Wentz on the same subject.

After the banquet the evening was enjoyably spent in dancing.

#### Convention Notes.

A display of brass goods and water pressure regulators manufactured by the H. Mueller Mfg. Co., Decatur, Ill., was



Display of H. Mueller Mfg. Co. in the Shop of H. L. Walker. Ed Stebbins at the Left and H. O. Alderman, of The Blau-gas Co., Omaha, At Right.

in charge of Ed. Stebbins, the showroom of L. H. Walker being utilized.

An exhibit of the Blau-gas Co. of Omaha, a complete lighting plant, was also shown in Mr. Walker's store, in charge of H. O. Alderman.

The Western Specialty Co., Kansas City, Mo., was represented by J. B. Stewart.

Salt Lake City, Utah.—The city commissioners of this city are contemplating the building of two public comfort stations in the near future to cost about \$5,000 each.

Muskogee, Okla.—Frank Carrol has resigned his position as plumber and repair man with the gas company and will open a plumbing establishment for himself in this town.

Springfield, Mo.—Contract for heating and ventilating the new addition to the Springfield high school building has been awarded to Lewis & Kitchen, of Kansas City, at a figure of \$19,980.

Davenport, Ia.—Fred Wernentin has purchased the four story brick building at the Southeast corner of Second and Warren Streets, and will have the structure remodeled for the location of a plumbing concern in which he is interested.



Some of the Ladies in Attendance at the Nebraska Convention.



L. N. Porter, Aurora, P. H. Cowgill, Central City, R. F. Stuart and W. P. Green, Both of North Platte.



A Group of Delegates Attending the Nebraska Convention.



# Complimentary Dinner to National President

A COMPLIMENTARY dinner was tendered Frank J. Fee, president of the National Association of Master Plumbers at the Knickerbocker Hotel, New York City, Thursday evening February 20, by the Manhattan branch of the New York City Association of Master Plumbers.

At 7:30 o'clock the parlor adjoining the banquet room was crowded with members and friends anxious to honor National President Frank J. Fee.

In the interim before dinner a buffet lunch was served and opportunity was given to renew old acquaintanceship and greet President Fee and other notables present.



Frank J. Fee, President National Association.

The line of march for the banquet room was formed at 8 o'clock and when the guests had all assembled a photograph was taken of the party.

During the dinner, which was an excellent one, the diners were entertained with music and a cabaret show, which was fully enjoyed.

During an intermission of the harmony, a handsome pearl handled pocket knife was presented to each of the diners, with a card bearing the following inscription:

"For this Knife we ask a FEE of a cent  
So the spell of friendship shall ne'er be spent.  
February 20, 1913."

The result of this request was more than the treasurer of the dinner committee, I. J. Brown, bargained for. He was last seen dragging a heavy traveling bag across the room filled with pennies, and vainly endeavoring to requisition someone to assist him. There is a report that a penny savings bank is to be started shortly in New York.

The dinner committee is to be congratulated upon the

arrangement of the tables, while the accoustics of the room were all that could be desired.

On the dais facing the entrance to the room were placed the guest of the evening, National President Frank J. Fee; Jas. P. Knight, who acted as toastmaster; John Byrns, who while the oldest, is still one of the youngest members of the association (this may appear paradoxical, but we have Mr. Byrn's own word for it); A. Selden Walker of New Jersey, past president of the national association; Walter D. Nolan, of Washington, D. C., national past president; John J. Hannegan, president of the Manhattan Branch; and William Young, No. 1. The other guests in attendance were.

Eugene J. Cumisky, H. B. DeVoe, William Dalton, John Gulnee, Geo. E. Gibson, Timothy E. Kerwin, Jere L. Murphy, John P. O'Brien, T. J. Tuomey, B. F. Donohoe, Arthur S. Gaynor, Harry Hemlin, Thomas Howly, Thomas P. McLaughlin, James McManus, John Renehan, Herbert Smith, Jos. D. Duffy, Chas. W. Freau, Charles Jamer, P. F. Kenny, Charles Murphy, George O'Connor, John F. Rogers, John Weyman, Thomas M. Belknap, Jos. K. Church, W. E. Hinsdale, W. F. Hennessey, Francis J. Meyer, E. C. Molby, J. E. Maire, Geo. M. Taylor, William J. Bapst, Wm. V. Carter, E. N. Cokefair, W. H. Hussey, Geo. H. Hoffman, F. E. Lally, John A. Murray, Charles Werlaus, I. J. Brown, Chas. H. Darmstadt, Louis F. Darmstadt, Emanuel Florsheim, William Hauptman, John L. Knight, James S. Lawlor, Ionas Rossman, A. A. Dumond, J. H. Robertson, Raymond P. Brown, Mr. Callahan, Joseph Graham, Mr. Kelly, W. J. McCormick, W. J. Marshall, J. H. Parker, Herman Swalm, Henry Altman, Jac. Abrams, I. J. Barth, Morris Jarcho, Jake Jarcho, W. J. Le Compte, Jac. Levy, B. W. Rod, J. J. Delaney, J. J. Fallihee, Ed. Hurley, Louis Moeschke, Thomas F. McCaul, John Murphy, Harry Spencer, William Young, Alfred Beyrodt, Wm. J. Flynn, Geo. A. Knauss, Thos. F. J. Moffett, Jas. W. Rowan, Peter Schweickert, Joseph Theiss, Fred. Weber, H. F. Coe, Wm. Crotty, Richard J. Donovan, John Grauston, H. W. A. Lehnert, Thomas A. McLaughlin, A. J. Purdue, Charles Catania, John J. Delebanty, Geo. L. Kumpf, John A. Long, John S. Murphy, John C. O'Neil, Edward J. Renehan, A. C. Wells, Homer Addams, E. H. Martin, W. B. Dunkin, Henry P. Hallock, Mr. Loomis, L. V. Manning, F. F. Rowell, Jas. A. Scharwath, Louis Wheelwright, John B. Ackerson, John P. Blair, W. G. Cornell, D. W. Haire, J. H. Jasper, James McCullagh, Geo. W. Simmons, Milton Schnaier, Herman Auskulat, Jos. H. Booth, Alex. J. Brown, John J. Dowling, W. J. Fowler, Pasquale Lauria, V. S. Rittenhouse, William Thompson, William Boss, John J. Foley, Charles Hensle, Frank Harbeck, Ossian Johnson, Edw. J. McCabe, Otto Ozab, Fred. J. Riehm, Charles A. Walsh, Edw. J. Brady, Asa Crookston, John J. Coleman, James Gribble, John Hopkin, Gus Hansen, Philip Reilly, John W. Cooney, M. J. Canavan, Charles Katz, Max Marcus, Jas. D. McEntee, Louis Rubin, Wm. J. Barry, J. Fred Griffin, E. Hammann, Chas. R. Heap, Frank McCullough, Philip Brady, F. W. Burdick, W. E. Crosby, Monroe Golding, W. Y. Jack, Walter A. Treacy, Frank J. Weisberg.

At the conclusion of the repast J. P. Knight, as toastmaster, arose to introduce the guest of the evening, National President Frank J. Fee, and became so enthused with his subject from the start that he left his place and made an address from the floor.

Mr. Knight said that he and Mr. Murphy, of the dinner committee, had determined, if the dinner was a success, to take all the credit. He stated that the committee had taken a vote on this question and it was almost unanimous, there being only one dissenting vote, that of the other member of the committee, Mr. I. J. Brown.

Mr. Knight paid a high tribute to President Fee and dwelt upon the sacrifice he had made when he accepted the office to further the interests of the national association. Mr. Knight also pointed out that no matter how hard President Fee worked, no matter what ability he was possessed of, all would go for naught, unless he was loyally supported by the organization. This support, Mr. Knight stated, he was

glad to report, had been given the president, so that whatever of achievement has been accomplished during the present administration would redound not only to the president but to each and every member of the organization as well.

Upon the conclusion of Mr. Knight's address and as he gracefully introduced the president, the orchestra struck up "For He's a Jolly Good Fellow," while the entire assemblage arose to sing the words to the accompaniment.

Mr. Fee is an extremely earnest and entertaining talker and he kept his audience interested during the whole of his address.

He spoke of his early struggles when he first came to America as a youth with no stock in trade or friends, but blessed with good health and an optimism that had never abandoned him. He said he felt, as he looked around the room and saw so many good friends, who had assembled to

Walter D. Nolan, Washington, D. C.; Past President A. Selden Walker, Orange, N. J.; J. J. Hannegan, president Manhattan association; J. J. O'Brien, Tenement House Department; Frank Meyer, of Meyer-Sniffen Co.; J. L. Murphy; Commissioner of Elections, William Dalton, and E. Hammann.

A rising vote of thanks was tendered the committee in charge of the evening's entertainment and the party broke up.

The committee in charge of the entertainment consisted of John Byrns, John A. Long, Pasquale Lauria, James Muir, Virgil S. Rittenhouse, Milton Schnaier, William Thompson, William Quick, Paul S. Bolger, Josia S. Lindsay, James McCullah, W. G. Cornell, Philip Smith, Gus Staats, Peter Sexton, James O'Brien.

The dinner committee was composed of James P. Knight, chairman; Jere L. Murphy, secretary; I. J. Brown, treasurer.



Dinner in Honor of National President Frank J. Fee, Knickerbocker Hotel, New York City, February 20, 1913.

do him honor, that friendship was worth everything else.

He spoke of what he had done during the year, and what he was endeavoring to do to further the interests of the national association.

He spoke in high praise of the loyalty of his executive committee and attributed to them due credit for what had been accomplished by him during the year.

Three cheers and a tiger were given as he concluded.

Toastmaster Knight then introduced one of the fathers of the organization, Mr. John Byrns.

Mr. Byrns spoke of the troubles encountered in organizing the national association years ago. He dwelt upon its growth from small beginnings, of the jealousy of master plumbers toward each other, which was now a thing of the past. He further spoke of the co-operation of the manufacturers and supply houses at the present time, in comparison with years ago.

Mr. Byrns then presented President Fee, on behalf of the Manhattan association, with a handsome diamond scarf pin.

President Fee, in accepting this token of appreciation, modestly disclaimed having done anything to deserve such a mark of esteem.

The other speakers of the evening were: Past President

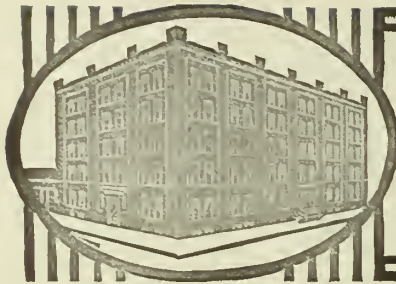
#### DATE FIXED FOR THE THIRTY-FIRST ANNUAL CONVENTION OF THE NATIONAL ASSOCIATION OF MASTER PLUMBERS.

The National Association of Master Plumbers will hold its thirty-first annual convention in Philadelphia, Pa., on June 16, 17 and 18, 1913, according to information just received from national headquarters. The Bellevue-Stratford hotel has been selected as headquarters for the meeting.

Cleveland, O.—The Hausmann Company has been incorporated with a capital of \$5,000 to conduct a general plumbing and heating business. The incorporators are: Henry A. Hausmann, William A. Hausmann, Adam C. Hausmann, F. B. Evarts and C. Verbsky.

Chicago, Ill.—Washington Plumbing & Heating Co. is the style of a new concern incorporated for \$1,500 to engage in a general plumbing and heating business. The incorporators are: Ernest T. Anderson, Louis Smith and Ernest Trominisky.





## News of Interest Among the Wholesalers and Manufacturers



### THE EASTERN SUPPLY ASSOCIATION'S WINTER MEETING.

The Eastern Supply Association held its regular winter meeting at the Hotel Astor, New York, February 19th, at which the following concerns were elected to membership:

W. A. Birdsall & Co., Newark, N. J.  
Hercules Iron & Supply Co., Boston, Mass.  
Sullivan & Daly Co., Boston, Mass.  
Thompson-Durkee Co., Boston, Mass.  
Lambertville Pottery Co., Lambertville, N. J.  
Medina Foundry Co., Medina, N. Y.

A most interesting and instructive address was delivered by Edward F. Trefz, field secretary of the Chamber of Commerce of the United States of America, on the aims and purposes of that body. The Eastern Supply Association decided by a unanimous vote to affiliate with the Chamber of Commerce of the United States of America.

W. J. Hunsperger, representing Haines, Jones & Cadbury Co., of Philadelphia, delivered an address on "Hajoca Plan of Compensating Salesmen."

This was an extremely interesting address, Mr. Hunsperger being a salesman himself.

It was the sense of the meeting that a charge should be made for parcel postage on each and every shipment.

The following concerns were represented as indicated:

Bayonne, N. J.—Bayonne Supply Co., G. E. Keenen.  
Boston, Mass.—W. B. Hubbard & Sons Co., Frank W. Hubbard; Dalton-Ingersoll Mfg. Co., O. J. Saxe; Thompson-Durkee Co., R. D. A. Thompson.  
Buffalo, N. Y.—Zander Plbg. Supply Co., F. W. Zander.  
Brooklyn, N. Y.—American Plbg. Mfg. Companies, James W. Winans; Ronalds & Johnson Co., F. H. Boardman; Coyne & Delany Co., John J. Delany.  
Cincinnati, O.—The Pfau Mfg. Co., R. P. Shannon.  
Chicago, Ill.—J. J. Ryan & Co., Wm. Higgins.  
Conshohocken, Pa.—Eastern Range Boiler & Welding Co., H. B. Hallett; John Wood Mfg. Co., Monte F. Jacobs, Victor Mauck.  
Dubuque, Ia.—A. Y. McDonald Mfg. Co., J. W. Gardner.  
Hartford, Conn.—Plimpton & Hills Corporation, H. C. Fletcher.  
Lambertville, N. J.—Lambertville Pottery Co., Geo. W. Ar-neth, Philip J. Faherty.  
Long Island City, N. Y.—Marks Lissberger & Son, P. Falk.  
M. L. Lissberger.  
Newark, N. J.—W. V. Egbert & Co., DeWitt Cook, Jr.  
New Haven, Conn.—The Peck Bros. & Co., P. N. Welch.  
New York, N. Y.—American Pin Co., L. S. Rothwell; Hayden-ville Co., Geo. T. Pearson; Hinsdale-Meyer Co., Harry A. Stevens; Hotchkiss, Vail & Garrison Co., E. W. Hotchkiss; L. O. Koven & Bro., L. O. Koven, Wm. Schulmerich; B. Lissberger & Co., B. Schulz; John A. Murray & Co., John A. Murray; The Peck Bros. & Co., H. E. Coe; John Simmons Co., W. W. Hawkins; Standard Sanitary Mfg. Co., J. J. Conran; John Trageser Steam Copper Works, L. Hassinger; United Lead Co., T. Mar-killie, U. S. Sanitary Mfg. Co., A. W. Ham.  
Noblesville, Ind.—Union Sanitary Mfg. Co., J. W. Gannon.  
Pawtucket, R. I.—The Thornley Supply Co., W. Y. Thornley.  
Philadelphia, Pa.—Stanley G. Flagg & Co., R. G. Williams; Fleck Bros. Co., Wm. C. Fleck; Haines, Jones & Cadbury Co., John T. Brown, Jr., W. J. Hunsperger; Kitson Co., J. W.

Graham; Haynes-Thompson Co., E. S. Thompson; Standard Sanitary Mfg. Co., J. Parry.

Pittsburgh, Pa.—Iron City Sanitary Mfg. Co., J. W. Burr; Standard Sanitary Mfg. Co., Francis J. Torrance; U. S. Sanitary Mfg. Co., A. H. Cline, Jr.

Port Chester, N. Y.—Abendroth Bros., Wm. Read, D. H. Roney.

Portland, Me.—W. L. Blake & Co., Wm. L. Blake.

Rochester, N. Y.—The Hunting Co., S. E. Hunting; Samuel Sloan & Co., G. R. Adams; L. Wolff Mfg. Co., W. E. Bruce.

Rutland, Vt.—Lincoln Iron Works, A. Marshall.

Scranton, Pa.—Ralph E. Weeks Co., M. F. Corcoran, Arthur L. Weeks.

Springfield, Mass.—E. Stebbins Mfg. Co., Raym-nod H. Smith, John Visscher.

Syracuse, N. Y.—The R. C. McClure Co., O. W. Middaugh; Pierce, Butler & Pierce Mfg. Co., P. M. Beecher, C. F. Ben-nett.

Trenton, N. J.—Keystone Pottery Co., J. W. Lyons; John Maddock & Sons, F. W. Bamford; Thos. Maddock's Sons Co., T. H. Bissell, H. S. Maddock, Jr., N. J. China Pottery Co., F. G. Hoffman; Trenton Potteries Co., W. G. Titus; Warren, Balderston & Co., W. O. Warren.

Washington, D. C.—John Mitchell, Jr., Co., Inc., James A. Messer; Standard San. Mfg. Co., Geo. Herth, Jr.

Watertown, N. Y.—John Weekes Sons Co., John Weekes, Jr.

Waukegan, Ill.—Northern Brass Mfg. Co., R. C. Wilson.

Wilkes-Barre, Pa.—Wyoming Supply & Mfg. Co., Jos. F. Evans.

### FEBRUARY MEETING OF CENTRAL SUPPLY ASSOCIATION AT CHICAGO.

The regular meeting of the Central Supply Association was held at the Hotel Sherman, Chicago, February 26th, the meeting of the executive committee being held the preceding day.

This was the most largely attended meeting ever held by the Association, 170 members being present.

The following firms were elected to membership:

National Plbg. & General Supply Co., 110 So. 12th Street, St. Louis, Mo.

J. H. Mulrein Plbg. Supply Co., Phoenix, Ariz.

J. B. Wise, Inc., Watertown, N. Y.

Morency-Van Buren Mfg. Co., Sturgis, Mich.

Philip Haas Company, Dayton, O.

At the morning session an address was delivered by Prof. W. A. Scott, Director of the School of Commerce of the University of Wisconsin, on "Banking Reform and Currency Legislation." The address was made through the courtesy of the National Citizens' League, formed for the protection of a sound banking system. The address was one calculated to arouse the interest of every jobber.

At the afternoon session Elmer H. Adams, of the law firm of Adams, Bobb & Adams, Chicago, talked on "Mechanics' Liens," giving special attention to the provisions in this and other states which would eliminate sub-contractors, as well as material men, preventing them from enjoying the benefits of the present laws.

An open discussion of the parcel post was indulged in, the feeling being expressed by most members that par-



cel post prepay charges should invariably be charged in the invoice to the customer.

Firms with no representatives sent proxies:

Aberdeen, S. D.—Crane & Ordway Co.  
Algoma, Wis.—Plumbers' Woodwork Co.  
Atlanta, Ga.—General Supply Co.  
Barberton, Ohio.—Pittsburg Valve & Fittings Co., G. P. Cartwright.  
Birmingham, Ala.—Hammond-Burd Co., Horace Hammond, Chas. W. Badger; Young & Vann Supply Co.  
Burlington, Wis.—Burlington Brass Works, Geo. P. Standnard, S. Jacobsen.  
Canton, Ohio.—Buckeye Tank & Seat Co., C. R. James; J. H. McLain Co., J. E. McLain.  
Cedar Rapids, Iowa.—Cedar Rapids Pump Co., A. E. Mulford; Dearborn Brass Co., E. S. Seeley.  
Chattanooga, Tenn.—The Cahill Iron Works; Casey-Hedges Co., R. R. Robe.  
Chicago, Ill.—W. D. Allen Mfg. Co.; American Radiator Co., J. E. Holland, D. E. Kennedy; Cameron-Schroth Co., W. A. Cameron; Chicago Granite Mfg. Co., J. A. Washick; Jas. B. Clow & Sons, J. R. Clow, Sr., W. E. McCollum; Crane Co., C. D. Little; The Davies Supply Co., W. B. Davies; S. Deschauer Co., Otto S. Deschauer; Findeisen & Kropf Mfg. Co., E. A. Keithby; The Goulds Mfg. Co., O. D. Hogue, T. W. Barnard; Henion & Hubbell, R. C. Mead; Illinois Malleable Iron Co., J. R. Steneck; Kellogg-Mackay Co., C. V. Kellogg, Geo. T. Hinds; Kelly & Jones Co., L. C. Huckins; Mark Mfg. Co., B. T. Bechtel, W. H. Bruce, E. A. Eichel, C. W. Larson, John V. Larson, L. P. Sutton; Monash-Younger Co.; National Plumbing & Heating Supply Co., E. C. Garrity; Peerless Heater Co., Race Nelson, A. Bodenweiser; Raymond, H. S., L. R. Phillips, R. R. Lally, Wm. F. Jones, F. Worcester, A. N. Hobart, L. A. Raymond, C. E. Kennish, G. W. Churchill; Republic Mfg. Co., W. A. Ratcliffe; J. J. Ryan & Co., J. J. Ryan; Spang, Chalfant & Co., J. D. Purdy, Jr., W. M. Thompson; Standard Sanitary Mfg. Co., Jno. A. Noone; Street & Kent Mfg. Co., C. D. Street, W. J. Street, Wm. B. Dale; C. C. Todd, C. C. Todd; U. S. Radiator Corporation, Warren S. Hillis; Weil Bros., I. Weil, Martin Weil, J. M. Weil; Weir & Craig Mfg. Co., Jas. Weir; Whitney & Ford, Chas. A. Ford; S. Wilks Mfg. Co., J. A. Hawkins; L. Wolff Mfg. Co., John F. Wolff, F. K. Dibley, W. Utling.  
Cincinnati, Ohio.—Merkel Bros. Company, A. A. Merkel; Murdock Mfg. & Supply Co., Jno. G. Murdock, Jr., Kelso Murdock; The D. T. Williams Valve Co., D. T. Williams.  
Cleveland, Ohio.—Kennedy Company, W. G. Callow; Standard Mfg. Co., H. F. Meyer.  
Columbus, Ohio.—Columbus Brass Co.; Columbus Supply Co.; Scioto Valley Supply Co., L. C. Huesmann.  
Dayton, Ohio.—The Dayton Supply Co., Jos. J. Abel; Philip Haas Co., Philip Haas, L. E. Feldman; McCormick Mfg. Co.  
Decatur, Ill.—Fleld & Shorb Co., W. C. Field.  
Denver, Colo.—The Morse Bros. Mch. & Supply Co., B. P. Morse; M. J. O'Fallon Supply Co.  
Des Moines, Iowa.—L. H. Kurtz Co.  
Detroit, Mich.—A. D. Mfg. Co.; Colwell Lead Co., John J. Plath; Detroit Brass Works, A. W. Fussey, O. P. Benjamin, F. M. Munniger, F. L. Uhl; Detroit Lead Pipe & Sheet Lead Works, E. A. Morris; Detroit Lubricator Co., Herbert I. Lord; Detroit Range Boiler Co., E. W. Stoddard; Michigan Plbg. Supply Co.; Quinn Mfg. Co., C. A. Schultz, S. A. Quinn; Murray W. Sales & Co.; The Sterling & Skinner Mfg. Co., R. R. Sterling; James M. Teahen, Jas. M. Teahen; United States Radiator Corporation, E. W. Sanborn; Walker Mfg. & Supply Co.  
Dubuque, Iowa.—Kretschmer Mfg. Co., Fred A. Kretschmer; A. Y. McDonald Mfg. Co., A. Y. McDonald.  
Eau Claire, Wis.—W. H. Hobbs Supply Co., E. A. Carroll.  
Fort Dodge, Iowa.—Leighton Supply Co., E. I. Leighton.  
Fort Wayne, Ind.—The P. & H. Supply Co., C. J. Stier.  
Grand Haven, Mich.—William Heap & Sons.  
Grand Rapids, Mich.—Ferguson Supply Co., Ltd.; Grand Rapids Supply Co., R. B. Kellogg; Wolverine Brass Works, H. C. Cornelius.  
Holland, Mich.—Thompson Mfg. Co.  
Indianapolis, Ind.—Central Supply Co., L. C. Huesmann; Indiana Supply Co., Jim Gilchrist, Geo. Taylor; Shirley Radiator & Fdy. Co., J. M. Chapman, Jr.

Kalamazoo, Mich.—Bond Supply Co.; Enameled Tank Co., Carl H. Zwermann.

Kansas City, Mo.—U. S. Water & Steam Supply Co., H. S. Ferguson; W. B. Young Supply Co., Geo. H. Gorton.

Kenosha, Wis.—Frost Mfg. Co.

Kokomo, Ind.—Central Closet Mfg. Co., Geo. A. Harper, D. W. Berry; Great Western Pottery Co., A. V. Conradt.

La Crosse, Wis.—W. A. Roosevelt Co., F. F. Flock.

Louisville, Ky.—The Ahrens & Ott Mfg. Co., Theo. Ahrens.

Mannington, W. Va.—Homewood Pottery Co., C. R. Elliott.

Mansfield, Ohio.—The Barnes Mfg. Co., T. R. Barnes; Hughes Supply Co.; Humphries Mfg. Co., F. F. Borchard; Ohio Brass Co., W. T. Jameson.

Milwaukee, Wis.—F. R. Dengel Mfg. Co., F. R. Dengel; B. Hoffmann Mfg. Co., Aug. Seelman; Hoffmann & Billings Mfg. Co., E. F. Niedecken; Robert Rom Co., Robert Rom; Rundle-Spence Mfg. Co., E. R. Spence; Wisconsin Plbg. & Htg. Supply Co., Wm. Scheuble.

Minneapolis, Minn.—Central Supply Co., P. J. Frey.

Muncie, Ind.—Geo. Keiser & Co.

New York, N. Y.—American Sanitary Works, B. O. Tilden.

Noblesville, Ind.—Union Sanitary Mfg. Co., E. V. Brigham.

Omaha, Neb.—United States Supply Co., J. B. Rahm.

Peoria, Ill.—Kinsey & Mahler Co., Warren Kinsey.

Phoenix, Ariz.—The J. H. Mulrein Plbg. Supply Co., J. H. Mulrein.

Pittsburgh, Pa.—Bailey-Farrell Mfg. Co., W. B. Bryar; Fort Pitt Supply Co.; Iron City Sanitary Mfg. Co., C. F. Meyer; Republic Iron & Steel Co., R. B. Zint, C. T. Johnston, D. J. Geary; Wm. B. Scaife & Sons, F. W. Peters; Spang, Chalfant & Co., D. B. McClelland; Standard Mfg. Co., C. A. Carothers; Standard Sanitary Mfg. Co., F. J. Torrance; United States Sanitary Mfg. Co., A. H. Cline, Jr.

Portsmouth, Ohio.—The Standard Supply Co., F. A. Ruhlman.

Quincy, Ill.—Modern Iron Works, Geo. J. Fischer.

Rockford, Ill.—Rockford Brass Works, J. H. Ryerson.

Salt Lake City, Utah.—Joseph Nelson Supply Co., Jos. Nelson; West Co., Joseph A. West.

San Antonio, Texas.—Higgins Co.

Sheboygan, Wis.—J. M. Kohler Sons Co., J. B. Murphy.

Sioux Falls, S. D.—Plumbing Supply Co., Chas. Symms.

Springfield, Mo.—Harry Cooper Supply Co., Harry Cooper.

St. Louis, Mo.—American Fdy. & Mfg. Co., Barney H. Sanders; John C. Kupferle Foundry Co., W. C. Ehrhardt; National Plbg. & General Supply Co., F. G. Turner; L. M. Rumsey Mfg. Co.; Monument Plg. Supply Co., Wm. Ivy.

St. Paul, Minn.—Cochran-Sargent Co., G. C. Rugg, H. H. Sargent; Crane & Ordway Co.; Union Brass & Metal Mfg. Co., P. J. Frey; Western Supply Co., J. L. Sullwold.

Steubenville, Ohio.—La Belle Iron Works, W. E. Watson, W. A. Taylor, Hoyle Jones.

Tampa, Fla.—Coates Plbg. Supply Co.

Terre Haute, Ind.—Frank Prox Co., Herman E. Prox.

Tiffin, Ohio.—Great Western Pottery Co., G. C. Kalbfleisch.

Toledo, Ohio.—American Plumbers' Supply Co.; National Supply Co., Frank Collins; Ohio Plumbers' Supply Co., T. M. Balnly, W. H. Roemer.

Union City, Ind.—Knapp Supply Co., L. C. Huesmann.

Wabash, Ind.—Honeywell Heating Specialty Co., J. C. Teague.

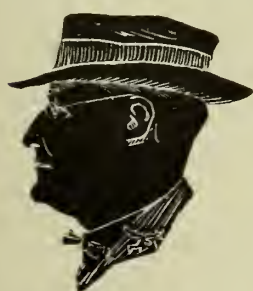
Watertown, N. Y.—J. B. Wise Co., Harry Verbeek.

Waukegan, Ill.—Northern Brass Mfg. Co., C. S. Johnson.

Wheeling, W. Va.—Trimble & Lutz Supply Co.; Wheeling Steel & Iron Co., A. S. Frampton; Wheeling Sanitary Mfg. Co., F. W. Wheelock.

Youngstown, Ohio.—Youngstown Sheet & Tube Co., W. E. Manning, L. B. Jenks.

Among other out-of-town visitors attending the convention were: Philip Haas and C. S. Feldman both of the Philip Haas Co., of Dayton, O.; and P. W. Gorman, of the Peerless Faucet Mfg. Co., of Salt Lake City, Utah; A. A. Ainsworth, Chicago; L. C. La Fleur, Potteries Selling Co., Chicago; H. B. Hallett, Eastern Range Boiler & Welding Co., Conshohocken, Pa.; W. C. Matlack, Trenton, N. J.; Wm. Devine, Jr., Thos. Maddocks' Sons Co., Trenton, N. J.



President William Ivy  
St. Louis.



P. J. Frey,  
Minneapolis.



Theodore Ahrens,  
Louisville.



A. V. Conradt,  
Kokomo, Ind.



J. B. Rahm,  
Omaha.



### H. W. JOHNS-MANVILLE CO'S. OFFICE IN NEW-ARK, N. J., IN NEW LOCATION.

The H. W. Johns-Manville Co. announces the removal of its office at Newark, N. J., to 239 Halsey street. The new office and salesroom is located on the ground floor of a modern building right in the heart of the city's business center. With a floor area of 4,000 square feet, ample space is afforded for the display of a varied line of packings, pipe coverings and lighting fixtures, etc.

### FEBRUARY MEETING OF THE NEW YORK CHAPTER OF A. S. H. V. E.

The New York Chapter of the American Society of Heating and Ventilating Engineers held its February meeting in the Engineering Societies Building, 29 West Thirty-ninth Street, New York City, Tuesday evening, February 18.

The meeting was called to order by President McCann at 8:30 o'clock.

The secretary read the minutes of the last meeting, which were adopted as read.

The secretary announced the election of the following new members: C. N. Flagg, Jr., Meriden, Conn.; John F. Carney, Long Ridge, Danbury, Conn.; Arthur A. Kiewitz, 500 Park Avenue, New York; E. A. Scott, 239 West Thirty-ninth Street, New York.

Associate member: H. G. Issertell, 527 West Thirty-fourth Street, New York.

Junior member: John F. Hanbury, 500 West One Hundred Seventy-third Street, New York.

J. A. Donnelly read the report of the committee on "Investigation of Fees for Professional Engineering Services."

Mr. Donnelly made a motion that a committee of five be appointed as a committee on tests, to codify tests and define the method to be adopted in testing apparatus. Mr. Addams made an amendment that a standard method of testing be adopted, so as to reflect current practice.

Mr. Timmins spoke on the subject of the data of apparatus which he said were more accurate than the data of actual plants. He seconded Mr. Donnelly's motion, with the amendment that the committee would also test plants in actual practice.

Mr. Timmis made a motion that a committee of three be appointed to study the character of the work of such a committee and decide upon its functions, to report at the next meeting.

Mr. Ohmes stated that the German engineers went through the same trouble ten years ago. They finally established a testing plant in Berlin for the purpose of testing apparatus.

Mr. Donnelly's motion was carried.

W. S. Timmis then gave a talk on "Factory Ventilation in Loft Buildings." This paper was discussed by Thomas Barwick, J. A. Donnelly, A. S. Armagnac, W. W. Macon, Frank T. Chapman, F. G. McCann and Arthur K. Ohmes.

Upon motion of Mr. Chapman, a vote of thanks was tendered Mr. Timmis for his paper.

Upon motion of Mr. Addams it was resolved that a ballot be submitted to the members changing the meeting night from the third Tuesday to the third Monday of each month, with the proviso that the board of governors were empowered to hold the meeting on another night if found advisable.

The president appointed the following committee on tests: D. D. Kimball, chairman; W. W. Macon, J. A. Donnelly, W. H. McKiever, W. S. Timmis.

Among those present were: F. G. McCann, F. T. Chapman, Arthur Ritter, Joseph Graham, J. A. Donnelly, Homer Addams, Conway Kiewitz, W. W. Macon, Arthur K. Ohmes, E. J. Treat, Arthur Kiewitz, A. S. Armagnac, E. A. Scott, C. E. Scott, Thomas Barwick, W. S. Timmis, F. A. Wilson, F. K. Chew, Geo. G. Schmidt, H. J. Barron, Chas. F. Chase, G. D. Farnham, W. F. Goodnow, C. E. Warsop, W. G. W. Turno, Wm. Haskill, W. F. McKennert.

### THE ANNUAL BANQUET OF THE NEW ENGLAND SANITARY CLUB.

Thirty-six members of the New England Sanitary Club gathered about the festive board at Young's Hotel, Boston on the evening of February 20. It was the annual banquet of the association and never was there a more successful one.

With the orchestra playing a lively air the club members marched into the hall shortly after six o'clock. It was more than five hours later that the last of the party strolled out. Between courses the company joined in singing popular songs or listened to the music of the orchestra.

President Oscar Saxe, of the Dalton-Ingersoll Co., called the gathering to order at the close of the dinner and introduced Jesse Y. Baker, of the William H. Gallison Co., as master of ceremonies. The speakers, in addition to President Saxe, were Dudley M. Holman, secretary to Governor Foss, who spoke on the Workingmen's compensation act; H. C. Bentley of Boston whose subject was "Business Administration and Accounting"; P. M. Beecher of Pierce, Butler & Pierce Manufacturing Co., Syracuse, N. Y., who spoke on "Knowledge"; Assistant United States District Attorney E. Mark Sullivan, of Boston, "The Business man"; James S. Cassedy, of Cambridge, president of the Massachusetts State Association of Master Plumbers, "Cooperation"; P. J. Sullivan, president of the Master Plumbers Association of Boston and Vicinity; and Joseph Maynard of the F. W. Webb manufacturing Co.

Members and guests present at the dinner included: W. B. Hubbard and F. W. Hubbard of W. B. Hubbard & Sons Co., Boston; J. W. Lyons, Keystone Pottery Co., Trenton, N. J.; W. H. Woodbury and O. F. Chellis, Dalton-Ingersoll Co., Boston; R. D. A. Thompson, Durkee Company, Boston; E. F. Butler, E. F. Butler & Co., Boston; Jesse Y. Baker, William H. Gallison Co., Boston; Joseph Devereux and P. J. O'Brien, James Barrett Manufacturing Co., Boston; George Perry and A. Pierce, George E. Gilchrist, Co., Boston; Frank H. Locke and Herbert E. Kau, Locke, Stevens Co., Boston; Frank Linehan, Mr. Manner and John O'Brien, Louis Bourneuf Corporation, Lynn; William H. Shurtleff, Brown Wales Co., Boston; Raymond Allison, Braman Dow Co.; Mr. Rich, R. Estabrook's Sons, Boston; Herbert Nickerson and George E. Phillips, Phillips Lead and Supply Co., Providence, R. I.; William H. Goodwin, Smith & Abbott Co., Portland, Me.; Daniel P. Sullivan, Sullivan & Daly Co., Boston; Edward Debussy, Meyer-Sniffen Co., New York; Joseph H. Young, J. H. Young & Co., Boston; E. F. Souther, ex-president of the organization, and E. A. Marsh, Pierce, Butler & Pierce Manufacturing Co., Boston.

### THE ANNUAL CONVENTION OF THE CONSOLIDATED ENGINEERING CO.

The Consolidated Engineering Co., manufacturers of the Van Auken and Thermograde systems of heating, held its annual convention at the Great Northern Hotel, Chicago, from Monday, February 17th until Friday, February 21st, and it was attended by all of their representatives throughout the United States and Canada.

The convention as a whole, while covering much ground from a business standpoint, was apparently a most enjoyable affair. Some fifty men participated in the business side of the convention as well as the social side, with equal zest.

The convention was called to order at 2 p. m. on Monday, February 17th, after which followed an address of welcome by President B. E. Van Auken, following which, the purposes of the convention were outlined by Vice-President W. J. Price. So interesting were the discussions and so keen the interest displayed, that this meeting,

were developed. Mr. Dredge took the chair by request and his first ruling was to the effect, that, inasmuch as they were all busily engaged in a discussion of business matters from morning until night, except for the meal hour, anyone discussing business during this latter period would be susceptible to a fine of not less than \$1 or more than \$4. Needless to say, it was not many minutes before someone was discovered discussing business matters and a fine of \$4 was promptly assessed against E. H. Murphy, of Pittsburgh. Mr. Murphy caused some excitement and not a little argument by his refusal to submit to the fine, which was finally adjusted by A. H. Propst, temporary sergeant-at-arms, collecting the fine at the exit. Following this, fines ranging from \$1 to \$4 were in order and when, made overly cautious by the continuance of these, the more conservative members decided to forego the privileges of conversation, they were promptly and properly fined for refusing to adhere to the spirit of the occasion.

In their enthusiasm, Messrs. Van Auken and Price were



Officers and Salesmen of the Consolidated Engineering Co., at Their Annual Convention in Chicago.

which was scheduled to adjourn at 5:30, continued until after 6:30, with the result that a night meeting was put over from 7:30 to 8:30 p. m. At this latter, a series of stereopticon views of valves of all kinds were shown and discussed by B. E. Van Auken. Mr. Van Auken, who has been in the vacuum heating business since its inception and is familiar with all types of thermostatic and float return valves, delivered an address that was interesting and instructive. Many of the older types of valves were shown and in the light of later day experience, the reason for their discard was made clear.

The program Tuesday opened with a visit to the factory, under the conduct of Alfred LaRue, superintendent, at which were shown the various methods of finishing and assembling the numerous steam heating specialties manufactured by this concern. An informal luncheon was thereafter tendered by the company at the Irish Village in the Boston Oyster House. It was at this point that the proclivities of Theo. F. Dredge, as a toastmaster,

fined so many times that the former in his indignation finally reached for his roll and holding it in plain view of the chairman, proceeded to tell him in unqualified language his exact opinion. To the surprise of everyone present, Mr. Van Auken escaped a fine in this instance.

At two o'clock on Tuesday afternoon, convention convened with an opening address by W. R. Hillman of Indianapolis on "The Salesman and the Architect." This was followed by R. B. Hall, Jr., of Atlanta, Ga., on "The Southern Territory Conditions." Another interesting feature was a paper by F. G. Walsh of Vancouver, B. C., who, being unable to attend the convention himself, sent, in lieu of his presence, a very comprehensive report on the Canadian situation from a steam specialty standpoint.

Wednesday morning the convention convened at ten o'clock with a meeting of executives, representatives and salesmen.

Following the Wednesday afternoon program, an informal meeting was held at which the disposition of the



finest collected (which by this time had assumed noticeable proportion) was discussed and plans were made for the disposal of same.

Following the adjournment of the convention on Thursday evening, a banquet was held in the Chicago room of the Great Northern Hotel, where a splendidly arranged menu and a complete entertainment program was followed out. As a result of the success of the business program to this time and the keen interest manifest by all of the representatives, announcement was made by Mr. Van Auken that the convention would be continued over Friday and that all representatives were invited to remain in Chicago over the Saturday and Sunday holiday following.

Matters of engineering data were discussed at the Friday meeting and addresses were made by F. H. Clegg, of Louisville, and Mr. Ravens, National Secretary of the N. A. S. E.; Otto Meltzow, of St. Louis, and others.

One of the noticeable features of the convention representative of the policy of the Consolidated Engineering Company was a spirit of intense co-operation. The work being done is of an educational value, broad in its scope and unbiased in its effort, and as one of the guests at the banquet remarked in his talk, no one could come in contact with this body of men without becoming imbued with its spirit of enthusiasm and its unselfish effort to educate the uninitiated into the actual requirements of the architect, owner and contractor.

Among those present throughout the convention were: B. E. Van Auken, W. J. Price, E. B. Gordon, Lloyd Howell, Thos. G. Wade, E. Engel, Alfred LaRue, A. H. Propst, E. N. Murphy, J. E. McDonald, R. W. Broom, Clarence Van Auken, Ray Van Auken, L. Williams, F. X. Thale, A. G. Young, E. A. Stephens, A. G. Batsner, E. Collins and F. H. Stevens, all of Chicago; Paul Dwyer, St. Paul; Theo. F. Dredge, San Francisco; R. B. Hall, jr., Atlanta; C. A. Meltzow, St. Louis; E. N. Field, St. Paul; L. Loeffler, Kansas City; R. W. Hillman, Indianapolis; C. E. Greenfield, St. Louis; George A. Brown, Milwaukee; L. C. Holmes, Washington, D. C.; W. E. Barnes, Boston; Carl Van Auken, Kansas City; W. R. Weed, New York City; G. W. Roberts, Boston; E. H. Murphy, Pittsburgh; J. J. Conlin, Montreal; W. T. Jones, Boston; R. E. Goldschmidt, Milwaukee.

Among the guests at the banquet were: Eugene O'Connor, Oklahoma City; Harry C. Potts, Columbus, O.; C. A. Patterson, Chicago; Wm. Scudder, Chicago; C. E. Evans, Freeport, Ill.; J. B. Gilmore, St. Louis; A. H. Hintze, Chicago; Jas. E. Degan, Chicago; F. H. Clegg, Louisville, Ky.

The convention was presided over by W. J. Price, vice-president of the company.

#### HITCHCOCK SUPPLY CO.'S PLUMBING SUPPLY BUSINESS SOLD TO CRANE CO.

The Hitchcock Supply Co., 164 Dwight Street, Springfield, Mass., has sold its plumbing supply business to the Crane Co., of Chicago, and it will hereafter be conducted as a branch house of that concern. This business was established some fifteen years ago and the above change follows the death of E. S. Hitchcock which occurred on November 17 last. Herbert R. Wolcott, for ten years assistant manager of the business, will be retained by the Crane Co. as manager of this branch. The building now occupied is four stories in height and 40x125 feet.



A. M. Maddock, jr., treasurer of the Thomas Maddock's Sons Co., Trenton, N. J., attended the meeting of the Central Supply Association in Chicago this week upon his return from a trip around the world.

William Newkirk, secretary and salesmanager of the Niagara Radiator & Boiler Company, North Tonawanda, N. Y., has just returned to New York City from an extensive Western trip.

The many friends of Edward T. Davis, proprietor of the New England Plumbing Supply Co., Springfield, Mass., will be glad to learn that he is now improved in health, having been confined to his home for some weeks with neuritis. He plans to leave for the South this week to regain his strength.

H. C. Bulkeley has become associated with the American Sanitary Mfg. Co., of Abingdon, Ill. Mr. Bulkeley is well known to the plumbing trade in the central west, owing to his connection for several years with the W. B. Young Supply Co., of Kansas City, Mo., and lately with the Crampton-Farley Brass Co., also of Kansas City, Mo.

R. P. Shannon, eastern representative of The Pfau Manufacturing Co., of Cincinnati, O., has recently moved into larger offices at 150 Nassau Street, New York City, where he will have a display of this company's goods.

E. C. Andrews, president of the Niagara Radiator & Boiler Co., North Tonawanda, N. Y., visited the New York Office of his company last week, just prior to his sailing on one of the North German Lloyd ships for a cruise to the West Indies, Panama and Central America.

F. W. McCormack, sales manager of the Cleveland Brass Mfg. Co., Cleveland, O., and better known as "Coast To Coast Mac," is in the East on his annual trip. He called on his friends in New England last week and lectured interestingly on the merits of the "Barrett" stop and waste cock.

L. M. Krouse, who has for many years been a member of the plumbing firm of Krouse & Harlow of Cincinnati, O., has recently joined the field force of the Pfau Mfg. Co., Cincinnati, O., and will act as special representative among architects and master plumbers. He will carry a sample of the Pfau white-copper tank with him for demonstrating purposes.

H. P. Baldwin, familiarly known to the Eastern plumbing trade through his long association with Pillsbury & Baldwin, Manufacturers of plumbers' wood work at St. Johnsbury, Vt., has accepted a position with the Quinn Manufacturing Company, of Detroit, Mich., and will exploit "Quinn quality" products in New York and the New England states. This territory, until recently, was covered by Jack Drew, who has lately severed his connection with the above concern.

W. M. Devine, well known to the trade through his sixteen years' connection with the Thomas Maddock's Sons Co., of Trenton, N. J., and later with the Potteries Selling Co., of that city, is now again traveling for the former concern covering all the territory west of Chicago.

### THREE PLUMBING SUPPLY SALESMEN.

A trio just off the firing line is shown in the accompanying reproduction of a photograph, which was caught by the camera between puffs of smoke at a recent engagement in Cincinnati, O. The gentleman in the rear is Frank R. Noss, of the D. C. Manufacturing Co., Can-



Three Plumbing Supply Salesmen.

ton, O. To the left is W. G. Magaw, of The Sanitary Co., Cleveland. The gentleman in the foreground who is frequently taken for Theodore Roosevelt is J. C. Foster, of the Sloan Valve Co., Chicago, Ill.

### A NEW "GENUINE PYRALIN" CLOSET SEAT.

The C. F. Church Mfg. Co., Holyoke, Mass., manufacturers of "Genuine Pyralin" bath room products, announce that they now have ready for introduction to the trade their sanitary lip closet seat. This seat is



A New "Genuine Pyralin" Closet Seat.

made to fit any standard bowl and is a regular pattern, with the exception that beneath the rim there is a lip, as shown in the illustration. This is a part of the seat itself and projects downward, under rim of bowl. The makers claim that this lip will effectively prevent the

escape of any bodily waste and will thus assure a sanitary condition in the bath room. The seat is covered with the company's "Genuine Pyralin" white covering.

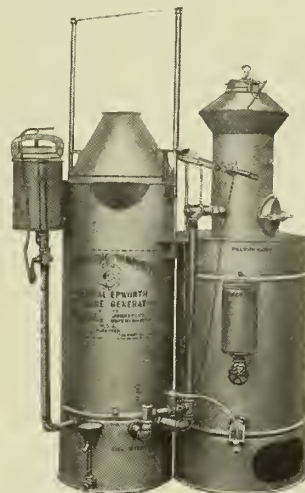
### PLUMBERS INSTALLING ACETYLENE LIGHTING SYSTEMS.

That many plumbers appreciate the opportunities afforded by the use of acetylene lighting systems, has been amply demonstrated by the increasing business done in these systems in the last two or three years. Many plumbers are carrying sample equipments on the floor and are following up country and village customers on these plants with pronounced success.

The Ideal Epworth Acetylene Co., of Johnstown, Pa., has for a number of years supplied these plants to their plumber customers and has co-operated with them in their sale.

Illustrated herewith is one of their fifty-light machines, which has been a very popular seller for small and medium-sized homes. These machines are made in several sizes and can be furnished for almost any size installation. This being a two-tank machine is especially valuable for such installations and furnishes a perfectly cool gas which intensifies the brilliancy of the light.

The carbide holder is in the top of the right hand tank where it drops through two hoppers into the water below. The carbide is measured as it goes through and no more than is actually needed is allowed to reach the water.



The Ideal Epworth Acetylene Generator.

These machines can be installed in houses already built or that are being built without injury to the finish. The National Board of Fire Underwriters permits the use of these machines and they are perfectly safe when in use.

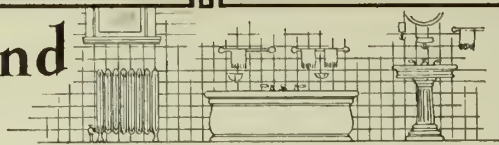
The Ideal Epworth Acetylene Company will be pleased to forward a copy of their catalogue to all those plumbers mentioning "Domestic Engineering." In addition to the general office and works at Johnstown, Pa., a branch office at Waterloo, Ia., looks after western shipments.

### HAMBURG BOILER WORKS MAKING PNEUMATIC TANKS.

The Hamburg Boiler Works, of Hamburg, Pa., who last year did a considerable business in pneumatic and storage tanks, have recently increased their equipment for the manufacture of this line.



# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—Thomas C. Boyd and Charles T. Byrne, master plumbers of Chicago have recently returned from a southern trip. They visited Havana, Cuba, and spent some time in Florida and also in New Orleans where they took in the Marda Gras.

Carl J. Stein, of Chicago, one of the directors of the National Association of Master Plumbers, returned a few days ago from an organization trip through northern Indiana. Wm. J. Woolley of Evansville, president of the Indiana State Association, accompanied Mr. Stein. They spent all of last week in doing organization work, and were successful in securing fifteen new members for the Indiana Association of Master Plumbers.

Thomas Conlin, well known Chicago plumbing contractor, has left on a trip to Florida for health and recreation. He expects to remain there for several weeks.

Officers of the Chicago Master Plumbers' Association intend this year to make quite an effort to increase the membership of the association in Chicago, both through a campaign by correspondence and by means of personal solicitation. The association also expects to make a big feature of the collection department (of plumbers' bills) which up to date has been very successful in the collection of "bad pay bills" due master plumbers. This department which was organized several months ago has collected aver \$1,000 of money due members of the association. Members are urged to send their bills when necessary, to the office of the secretary, 718 Schiller building, Chicago.

Willis J. Hanford, master plumber and sanitary engineer of Philadelphia, was a visitor with his wife in Chicago the other day. He came here to call on relatives.

David Whiteford, the well known master plumbers, says business is livening up considerably in his district at this time. He believes the spring will bring a large measure of repair work for members of the craft on the west side.

The annual meeting of the Chicago Steam Heating and Ventilating Engineers, with headquarters at 720 Schiller Building, was celebrated by a banquet at the Union Hotel on the evening of February 4th. Preceding the banquet there was a business meeting, which was attended by the entire membership. According to the reports of the various officers, the organization is in an exceedingly healthy and prosperous condition. The address of President R. H. Thomas recounting the work of the association during the few years it has been in existence, was the feature of the evening. The officers elected for the coming year were as follows: president, R. H. Thomas; vice-president, John R. Kehm; treasurer, Geo. A. Henrich; secretary, Wm. Klender; directors, R. H. Thomas, Geo. A. Henrich, Wm. Klender, W. B. Graves, N. P. Miller, J. H. Olson, W. N. Smith. The association has also recently established a collection department for the collection of money due the members. This department,

which is maintained for the service of the members, has been productive of very excellent returns and gives promise of being in future a very important feature of the association. E. E. Melum, who has been secretary of the association for several years has been retained in a similar capacity for the coming year.

P. Murphy, of the Murphy-Keeley Co., has recently returned from a ten day's recreation trip to West Baden, Indiana. While at the Hoosier resort he met W. J. Morris, another well known master plumber of Chicago who was also there for purposes of health and recreation. Both returned to the city together.

Alfred A. Clifton, a master plumber of Brooklyn, N. Y., called on the plumbing supply houses of Chicago recently. He says master plumbers of Brooklyn are looking forward to a prosperous year.

The installation of three sewage plants in Chicago, on the north west and south sides, for purifying the city sewage before it is discharged into the drainage canal is recommended in a recent report made to Mayor Harrison by a subcommittee of the committee on sanitation, composed of Aldermen Nance, Cullerton and Pretzel.

### Caught in Cedar Rapids.

It was the pleasure of the "Domestic Engineering" representative to catch two good-looking men with his camera in Cedar Rapids. The one on the right is J. H. Fenton, whose plumbing business is one of the best



C. C. Schimberg, of Chicago, and J. H. Fenton, of Cedar Rapids, Iowa.

known in that portion of Iowa. The other gentleman is C. C. Schimberg, who carries the grip for Weil Bros. in that territory. Mr. Schimberg is well known in Iowa, having been for nine years with the Goulds Mfg. Co. in that territory.

# California

San Francisco.—Now that the annual inventories are over and plans for immediate business completed, plumbers and supply men are awakening to the fact that more money and in larger lots is to be spent in San Francisco during 1913 than in any year since the insurance millions were spent after the fire of 1906. Some of the heavy expenditures are due directly to the Exposition, others to the opening of the Panama Canal, and still others to the general expansion of business. The single item of railroad expenditures will go into several million dollars. The Southern Pacific Co., which last year extended and electrified its fifty or sixty miles of suburban railway lines east of San Francisco Bay, has announced plans for 1913 which include a \$600,000 depot in this city. The same company has already made extensive purchases of tools and equipment for its shops, both here and in the north, and will, either this year or next, make heavy expenditures for terminal facilities to accommodate the Exposition passenger and freight traffic. Other large concerns are also planning for costly improvements during the year, and altogether there should be greater industrial activity in this city than for many years past.

Statistical records of Coast cities for January are ground for great encouragement. Bank clearings show a gain in all the large cities, and the San Francisco building record, \$2,062,001, is the best for any January in several years. Building in Oakland and San Diego shows gains of nearly \$300,000 over last year, in each place, and the Sacramento record is over four times that of January, 1912. Portland, Ore., shows a marked improvement, with indications of greater activity in the spring. Export business is active, both with the Orient and Hawaii, as well as the islands of the south Pacific.

The recent cold snap, though of short duration, has given a marked stimulus to the installation of adequate heating appliances in buildings of all descriptions. It has pretty well refuted the pleasing fiction that artificial heat is not needed in California, and, while elaborate systems are not needed as in most eastern localities, owners and architects are more than ever disposed to provide against such emergencies. This tendency is noted by the Royal Heating Co. of this city, which reports a large amount of work both on hand and in prospect in the installation of furnaces in residence buildings.

San Francisco.—New contracts in connection with city buildings are hardly as numerous as a few weeks ago, though there is still a great deal of figuring, and the trade looks for an early resumption of activity. There is, in fact, no lack of work at the present time, as little more than a start has been made on many large jobs let during the last month or two. Most of the fixtures and finishing materials for such jobs were ordered some time ago, and in many cases are held in local warehouses, but the plumbers are not as yet ready to have them delivered on the job. Stocks of fixtures, etc., in the hands of local jobbers are apparently large, but when delivery is made of all the goods actually sold it is believed that supplies will turn out much smaller than they now appear.

A good many local dealers have been preparing to place large orders for brass goods, but this tendency has been abruptly stopped by news of the drop in copper, and the only orders coming out are for the most urgent needs. Copper sheets and tubing in the local market have already declined 1 cent per pound, and the trade

is apprehensive of an all-around decline in brass goods. It is reported, however, that buyers here, who have usually in the past been well protected, will be required to take all the goods now under contract for future delivery.

The Exposition directors have bids for the fire protection and service water systems still under consideration, but an award is expected shortly. The city of San Diego, which was to have taken bids for about 5,000 tons of cast iron pipe, has returned the bids unopened, owing to inability to dispose of the \$175,000 bond issue. A new inquiry from this quarter is expected early in the summer.

Figures are to be taken very soon on a number of large buildings in San Francisco and vicinity. Grant Fee, who has the general contract for the U. S. sub-treasury at Pine and Sansome streets, is preparing to let the sub-contracts, and figures have been called for on the Oakland municipal auditorium, while plans for the local city hall are almost complete. The Exposition Company has called for figures on the Educational Building, including plumbing, sewers and water piping, the structure being planned to cover an area 500 by 530 feet. It is now announced that, in addition to its contemplated passenger station in this city, the Southern Pacific Railroad will start work in the spring on a station at Los Angeles to cost about half a million dollars.

The firm which has done business for some years under the name of H. W. Moffatt & Co. has been incorporated as the Moffatt Engineering Co., with a capital stock of \$50,000, by F. W. Warren, H. W. and F. B. Moffatt. This company is now doing business on an "efficiency plan," by which the firm depends for its profits on the demonstrated economies effected by the use of its devices. The company reports one contract on which work was recently completed in which the saving is \$10,000 a month.

The Royal Investment Co. has awarded the contract for the plumbing, gasfitting, sewerage, etc., on its new three-story loft building, on California Street and Van Ness Avenue, to Wm. Wade.

The Petersen-James Co. has taken a contract for plumbing and gas fitting, steam heating and hot water systems, standpipes, tanks, etc., in a 6-story building at Geary and Jones streets, at \$7,100.

Los Angeles.—The Merchant Plumbers' Association of Los Angeles has recently moved from the Walker Building, their location for several years, into their own hall at 131 West Fifteenth Street, where their quarters are now much more commodious and the facilities for taking care of the members very much improved.

Lettich Bros. have taken a contract for plumbing in a 6-story store and apartment building at Jackson and Drumm streets, at \$5,350. The heating contract was taken by the Turner Company at \$880.

Architect Harrison Albright, designer of the Clark Hotel, now under construction at Los Angeles, has applied for a permit to install additional plumbing. Changes have been made in the plans to provide a complete private bathroom for each guest. The additional cost is estimated at \$100,000.

The Los Angeles Hospital Association has secured a permit to lay steam pipe lines under East Washington street, Los Angeles, to supply steam and hot water to a building across the street.

Contract for the heating plant in the new Y. M. C. A. building at Sacramento, Cal., has been let to the General Engineering Co. at \$4,400, and the plumbing to Hateley & Hateley at \$8,300.



Work has just been started on the Howland Memorial Church at Los Angeles, which involves some interesting features. Aside from the heating and ventilation, which will be by the plenum fan system, with oil-burning furnace, this mission concrete structure will have lead gutters and cast-iron leader pipes built in the walls.

Jim Bowman, of the plumbing firm of Bowman & Taylor, at Patterson, Cal., has sold his interest to J. Crowell.

James Mathes, of Oxnard, Cal., has taken over the hardware stock of H. W. Witman. Mr. Witman is putting up a new shop building and will give all his attention to his plumbing business in the future.

## Connecticut

Hartford.—Otto Epstein, 34 Wells Street, is doing the plumbing in a three-family house for Mr. Seltzer, on Bushnell Street; a two-family house for Thos. Ratigan, on Sigourney Street; a factory for W. H. Wiley & Son Co., on Pliny Street.

F. S. Campbell is plumbing a two-family house for Raymond Shaun, on Smith Avenue.

Jas. E. Murray is installing the plumbing in a three-family house for Robert Wendin, on Prospect Avenue, and remodeling the plumbing in a residence for Chas. Wegner, on Morris Street.

Dowd and Sadler are installing the plumbing in a three-family home for Shojohanna Bros., on Campbell Avenue, and remodeling the plumbing in a building on Lawrence Street for Boyle and Halliday.

Waterbury.—The Barlow Brothers Co. has been awarded the contract for the furnace heating in R. F. Griggs' residence, on Hillside avenue, which is being remodelled.

Bridgeport.—The Master Plumbers' Association has petitioned the city council for the creation of the office of plumbing inspector, and the appointment of such an official under the direction of the board of health. The petitioners suggest a salary of \$1,200 be attached to the office. The matter is being considered by the committee on ordinances of the city council and a report is expected later.

Fourteen applicants for master plumbers' licenses were examined by the plumbing examiners of the city during 1912, and of this number but six were passed.

Waterbury.—The Scoville Manufacturing Co. is soon to erect a new building. It will be 17 by 20 ft., four stories in height and will be used entirely for sanitariums.

New Britain.—Health Commissioner C. J. Leroux has been instructed to appear before the legislative committee in opposition to the proposed bill for the licensing of plumbers here. The health board objects to the bill because it provides for a board of examiners composed of a member of the board of health, a master plumber and a journeyman plumber. This, it is declared, places the balance of power in the hands of the plumbers themselves. Another objectionable feature of the bill is that it would allow plumbers from other states to engage in business or at the trade here if they produce an affidavit that they have been in business elsewhere for a year.

Watertown.—M. J. Daly & Sons, Inc., has secured the contract for plumbing in the office building being erected at Meadow and Grand Streets for the American Brass Co.

## Delaware

Wilmington, Del.—Murphy & McKay, Eighth and Shipley streets, have dissolved partnership. Mr. Murphy will continue the business at the same address.

Wilmington.—J. Watson Miller, 811 Shipley street, has been awarded plumbing contract for five new houses and one bungalow which are being erected at 26th and Tattall streets for Mr. A. Reed.

Gawthrop & Bro. are doing the plumbing in the new apartment houses which are being erected at 8th and Shipley streets.

## Iowa

### A Youthful Reader of "Domestic Engineering."

One of the eager readers of "Domestic Engineering" is Master Clifford M. Chapman, the seven-year-old son of Charles E. Chapman, plumber, of Manchester, Ia. Master Clifford can read any article in the paper and can pro-



Master Clifford M. Chapman, Manchester, Ia.

nounce any of the words correctly. Since he was three years old he has made it a point each week to ask his father for a chance to look over his "yellow journal." While beginning rather young, this young man has an advantage that many of the older men in the trade now regret that they were denied. When they were boys there was no such magazine available, although "Domestic Engineering" has now been published for twenty-four years.

Nevada.—"Bud" Chapman, proprietor of the Nevada Plumbing & Heating Co., lately surprised his friends by taking unto himself a life partner.

Fort Dodge.—Mr. Holmberg, of Peterson & Holmberg, who was taken with smallpox while attending the Iowa convention at Sioux City three weeks ago, is now convalescing and will soon be back on the job.

Iowa City.—Connell & Co. have leased the Lane building at West Liberty for five years and have opened up a high grade plumbing and heating establishment under the name of Morgan & Co., Mr. Morgan having been their foreman at Iowa City.

Oskaloosa.—Homer Phelps has opened a plumbing establishment at this place, and will carry a complete line of high grade enameled goods. His display room is so equipped as to show combinations of the different bath room fixtures.

## Kentucky

Louisville.—Events of the past week have proved to Louisville plumbers and steam fitters that whatever business they may expect during the next four or six weeks will probably come from sources already uncovered, and not through channels which are the result of new building in the Bluegrass realm. February plumbing jobs will undoubtedly consist of jobbing and new installation upon such structural contracts as have progressed far enough during the winter now to demand interior equipment and finish. Any save the most imperative building activity invariably slows up at this time of the year, but the members of the allied trades are more than satisfied that it has failed to slacken earlier than the present date.

The passage of the first month in the new year has brought the market to an undisturbed, altogether satisfactory level from which it is not likely to depart for some time to come. During the month most of the supply houses have held stockholders' meetings and no changes of importance have been forthcoming, this indicating that the men who have invested heavily in the Kentucky trade have full confidence in those who have guided the business during the past twelve months. Very little, if any interruption in the regular trend of trade was occasioned by the readjustment of directorates for the ensuing year. This is evidenced in the undisturbed condition of the supply market as well as in the unchanged personnel of the supply houses. Prices have remained firm without alteration from the well-toned standards which characterized the opening of the new year. Attention is focussed upon cast iron, of course, and while authorities in the supply trades declare that they would become millionaires if they knew which way iron will go during the next sixty days, it is admitted that no cause for apprehension is found in the situation at present.

"Making the plumber more of a merchant than a mechanic" will be the burden of work to be taken up by the Louisville Master Plumbers' Association, of this city, during the next few weeks under the direction of President George W. Schardein. The second administration as head of the L. M. P. A., with which Mr. Schardein was recently honored, was conferred largely because he is possessed of such thorough-going ideas upon this all-important topic in the trade.

"The Association now numbers about sixty enthusiastic members, and we are going straight ahead with a lot of interesting and profitable work during 1913," said President George W. Schardein. "Our present plans for lectures, addresses and stereopticon talks at meetings during the next few months will be to make the plumb-

er as much, if not more, of a merchant than he is a mechanic.

"We will get all the boys to pull together toward better-ordered shops, fuller stocks of accessories which may be sold over the counter, improved cost-accounting systems and more money in the end. We all wish to be as well versed in satisfying the customer who meets us as merchants, as we have tried to be in meeting calls for the services of mechanics. These are the lines along which the Louisville Master Plumbers' Association will work during 1913."

During several meetings of the association that are ahead a programme bearing especially upon merchandising points will be carried out under the direction of Mr. Schardein. General discussion of scientific salesmanship for the plumber is expected to develop a great deal of valuable material along this line. Illustrations which will be offered during the round-table talks will undoubtedly uncover new specialties with which the master craft at large has hitherto been unprofitably unacquainted. The progressive work of the Gateway City organization promises to be of inestimable value to every member attending the weekly sessions.

Neville, Kellner & Co. have discovered plenty of heating jobs in Louisville during the past couple of weeks, despite the unseasonably warm weather, among them being the installation of a complete heating system in the plant of Castleman & Blakemore; similar equipment in the Jefferson branch of the Louisville Free Public Library, at Eighteenth and Jefferson streets; in the George Morris school, at Floyd and Chestnut streets, and in the Montgomery Street school, at Twenty-fifth and Montgomery streets.

Robert Hegan, formerly a member of the firm of Roser & Hegan, but now engaged in business for himself, has secured the contract for plumbing installation in the new store and dance hall building which is being erected by a syndicate of local capitalists upon the northwest corner of Fourth Avenue and Broadway.

John Fleck, an East End master plumber, has several important jobs in hand. Two of the most notable are those for plumbing in the residences of Frank Fehr and Fred M. Sackett. Each of the dwellings, costing into the tens of thousands of dollars, will contain half a dozen or more completely equipped bathrooms, bed-chamber lavatories and extensive kitchen and laundry plumbing.

W. J. Bean, of Hartford, Ky., is general superintendent of the work of rebuilding Hartford College in that city, at a cost of \$15,500. Contracts for the plumbing and heating installation will be let in the near future.

Lawrence Langefels, of Maysville, Ky., recently secured a contract from the Maysville Street Railway Co., for furnishing several bath-tub seats, showers, lavatories, and complete toilet installations in the car barn of that company.

New plumbing is to be installed in the Western State hospital, at Hopkinsville, Ky., according to plans now in the hands of D. X. Murphy & Brother, well known architects at Fifth and Market Streets in Louisville. Judge Garrett S. Wall, of Maysville, Ky., president of the State Board of Control of Charitable Institutions, recently visited Louisville to make arrangements for plans for re-building the Hopkinsville hospital, which was recently damaged by fire.

Lafayette, Ind.—A. E. Bradbury & Co. have secured the contract for plumbing in the new dairy barn at the Purdue farm, at a price of \$3,600.



## Maine

Portland.—Michael H. Myers, a member of the plumbing firm of Myers and Mahoney, was struck by an automobile as he was alighting from an electric car a few days ago and was badly injured. He was thrown against the curbing, his head striking the curb, and sustained severe cuts and bruises. There were no internal injuries, however.

Bangor.—The salary of Charles H. Cullinan, recently appointed inspector of plumbing, has been fixed by the board of health at \$600 per year. The term of office of the inspector expires in May.

### New President of Maine Association.

F. E. Wheeler, newly elected president of the Maine State Association of Master Plumbers, which held its



F. E. Wheeler,  
Woodfords, Me.

convention at Augusta on January 30th, has been in the plumbing business at Portland, Me., for twenty-five years, although his post office address is Woodfords, Me. His store is at 645 Forrest avenue, in the Odd fellows' block, where he does a great variety of work, including steam and hot water heating and a general line of plumbing work, warm air furnaces, conductors and tin roofing. He also carries a large line of stoves and ranges, hardware, paints and oils.

His business requires the services of from ten to fif-

teen men practically all season long and his plumbing and heating work is to be found in all parts of the state. He believes in letting the public who are located beyond the city limits of Portland know what he can do for them and has prospered accordingly.

Mr. Wheeler has the distinction of being the first and only master plumber in the city of Portland operating an automobile in connection with his business for business purposes.

Mr. Wheeler is well and favorably known over the entire state, having been for eight years representative to the Great Council of U. S., Improved Order of Red Men. He is also a member of the Masonic, Odd Fellows, K. of P. and the Elks orders.

Springvale.—James Mullen has a contract for installing heating and plumbing apparatus in the Kempton block.

Arthur J. Sanford has been awarded the contract for a heating plant for the new Olympic Theater at Salem. Mr. Sanford has just completed piping for the new two million gallon pump at the local pumping station.

Philadelphia, Pa.—Boon & Sample, who sold their property at 1737 Filbert Street recently, have purchased the Charles Lippincott property at 1708 Arch street, for \$25,000, and will occupy it early next fall as a plumbing shop and offices. The purchasers will make extensive improvements, including a handsome store front and the remodeling of the interior.

## Massachusetts

Boston.—Stone & Underhill, heating and ventilating contractors, have moved their Boston office from 17 Milk street to 139 Pearl street, where they have an entire building. The change was necessitated by rapid growth of the business.

Taunton.—The committee on public property has awarded a contract for plumbing at the Weir police station to L. F. Whitmarsh.

Wareham.—J. C. Trefethen & Co. has the contract for the heating and Alex Hunter for the plumbing in the new Red Men's building.

Great Barrington.—Hammer Brothers have been awarded the contract for the plumbing in E. D. Balken's new country home near North Egremont.

Salem.—A new steam heating system, with a vacuum exhaust attachment, is being installed in the factory of the Arthur T. Way Co., Inc., on Boston Avenue. This system is being furnished by Braman, Dow & Co., of Boston.

Newburyport.—The Hall Plumbing & Heating Co., of this city, has the contract for installing a vapor and steam plant in the new building being erected at Dummer Academy, Ipswich.

Springfield.—W. C. Staples has withdrawn from the plumbing, heating and hardware firm of La Fountain Staples & Co., and his interest has been acquired by W. D. Woolson. The concern will hereafter be known as La-Fountain, Woolson & Co., and is now composed of Albert W. LaFountain, W. D. Woolson and W. E. Day. The business is one of the oldest established in the community. Fifteen years ago Mr. LaFountain bought a half interest with W. H. H. Putnam and the firm was known as Putnam & LaFountain. After six years Mr. Putnam retired and Mr. Staples was taken into the firm and for the past nine years has been actively connected with it.

P. A. Roberts has the contract for the plumbing in a new residence for G. Roberts, on Albe Avenue.

H. W. Washburn has secured the plumbing in the Polish church, on Parker Street.

The Oliva & Howland Co. has the plumbing contract in the Hamden Paint Co.'s plant, on Armory Street.

The plumbing in the Advent church, on Bay Street, has been let to L. C. Dunlap.

E. F. Zeigler is installing plumbing in a building at 642 Bank Street for P. Ciuninei.

The Coe & Coleman Co., 970 Chapel Street, has just secured the contract for the plumbing in the Masonic temple, on Whalley Avenue.

Curtis & Pierpont Co. has the plumbing contract in a residence for J. C. Clark, on Fountain Street.

## New Jersey

Camden.—Jas. F. Walton, Second and Main Streets, was the fortunate bidder to install plumbing in the new Masonic temple, which is now under construction.

L. C. Simpson & Co. are making extensive alterations in the building at 715 Broadway for E. F. Knoerr.

E. T. Jackson, 918 Broadway, is installing heating and

plumbing in new residence at Haddonfield, N. J., for Jas. F. Baker.

Wildwood.—C. F. Klmer is installing heating and plumbing in the Holly Beach yacht club.

Rockledge.—H. A. Bertsch has opened a new plumbing establishment in this town and already has quite a few contracts on hand for the coming season. Mr. Bertsch will be pleased to hear from the different manufacturers with catalogues.

Folsom.—A. T. Phillips has been awarded contract for the plumbing and heating in the new hospital which is being erected in Ridley Park, Pa.

Collingswood.—F. W. Doughty has been awarded contract for heating and plumbing in nine new bungalows in W. Collingswood, for A. F. Doughty.

Trenton.—Pipe Bros., have been awarded heating and plumbing contract on the State National Bank in this city.

## Minnesota

St. Paul.—Spring building from present indications will pass all records in this city this year, as contractors on the large work have taken advantage of the open winter and have nearly all of the work ready to start operations as soon as the frost has left the ground. The wreckers are hard at work clearing the grounds for the new library building, and for the Gordon & Ferguson factory. These buildings will be under construction about the first of April; plumbing and heating figures will be taken some time in March.

Swanson Brothers, 506 Capitol bank building were awarded the heating contract in a two store and flat building being built at Van Buren and Snelling avenues. They are also installing a new boiler in the hotel at University and Snelling avenues.

E. J. Snyder, 1661 Grand avenue, was low bidder on the plumbing in a new residence for C. T. Weiser, 1996 Dayton avenue, and a residence for E. F. Seyford in Merriam Park.

Wagner and Tschida, 506 N. Dale street, will move their business to University and St. Albans streets about the first of March. They were recently the successful bidders on the plumbing work for Mrs. S. Stones' residence at 964 University avenue.

C. J. Conroy, 273 W. Fifth street, is installing the plumbing in a four flat building at University and Chatsworth streets, for H. S. Curtis, George McGeary, 159 W. Third street, is installing the heating system.

Fred Fredricksen, 900 Rice street, was the successful bidder on the plumbing and heating in a new residence for Gust Carlson, at Woodbridge and Lawson streets.

Geo. Rigelsberger and Co., 180 W. Seventh street, are installing new plumbing fixtures in S. P. Crosby's residence at 271 River Boulevard.

C. S. Schiller, 938 Rice street was awarded the plumbing and heating contract in a new residence for L. W. Baumeister to be built at 1145 Ross street.

Nels Nelson, 1457 Hewitt avenue, was awarded the heating contract in the new factory and office building for the Capital City Lumber Co. Mr. Nelson is also installing heating plants in six new residences, for Mrs. Remington, 2108 Second avenue South Minneapolis, in three new dwellings for T. D. Lane, at Lincoln and Pas-

call avenues; two houses on Hewitt avenue, one on Van Buren street and one on Holten street, for John Florin; a heating plant for J. C. Bock, 478 Smith avenue, for K. Livingston, on Case and Arkwright streets; and for Frank Sgostrom at Selby and Syndicate streets and at Lincoln and Lexington avenues.

Lenway Brothers, Faribault Minn., were the successful bidders on the plumbing and heating in a large residence for John Leach, at Faribault.

## Ohio

Columbus.—Service Director Samuel A. Kinnear and City Engineer Maetzel are working for the construction of several public comfort stations, to be located beneath the ground in the northwest corner of the state house grounds and at several other points in the city. They want the state to pay the costs, which will be about \$25,000 for the one in the state house grounds, and they propose that the city pay the expense of maintenance. A bill will be prepared and introduced in the House of Representatives to provide for such an appropriation. The only part of the stations that would appear above the ground, according to the plans, would be two ornamental entrances.

Jessy O'Shaughnessy, superintendent of the water works department, has invented a pipe-thawing apparatus which was tested recently before the members of the Ohio State Waterworks' Association, which met in Columbus. No ice was used in the exhibition, but the heat readily converted into steam the rain falling on a bar of iron, which convinced all that the apparatus would do the work claimed for it. The apparatus consists of a dynamo run by a gasoline engine, mounted on a new city auto truck and attached by wires to the pipe intended to be thawed. About 50 volts are used.

John Harris, 2625 Indianola Avenue, has been appointed on the city board of plumbing examiners to succeed John J. Lawler. J. J. Dolan and A. W. Reynolds were re-appointed on the board. Their terms expire December 31, 1913.

Cincinnati.—Owing to the new improvement to be built on the northeast corner of 6th and Main streets, E. J. Nolan & Co. are compelled to seek new quarters and have succeeded in securing an entire building on the south side of the canal, between Main and Walnut. The new building on 6th and Main will be twelve stories high and is being erected by the Vanderbilt estate, as per plans by Ernest Flagg, New York.

Thomas Canary, 204 W. 7th Avenue, has been awarded the contract for plumbing residence for Mrs. Marie Richter, on Wabash Avenue.

Geo. Schmeig, who was formerly in partnership with J. A. Klasen, under the firm name of Schmeig & Klasen, has opened up a business for himself at 1912 Mills avenue, Norwood, O.

Edward Morgan & Co., of Avondale, will open up a branch plumbing establishment in building located on the northeast corner of Highland and McMillan streets, Mt. Auburn.

William Hillenbrand & Co., will install the plumbing in residence being erected on Holly avenue, East Walnut Hills for Mr. E. F. Luken.

The Douglass Plumbing & Heating Co. has secured con-



tract for plumbing in the building at 8th and Broadway, being erected by Windisch-Muhlhauser Brewing Co.

Joseph Phillips, connected with the Rookwood Pottery, Mt. Adams, contemplates the erection of nineteen homes of the English style of architecture, on Glenwood Avenue, Avondale. These houses are to be finished in stucco and to contain from six to eight rooms.

Specifications are being written for the new public school building to be erected on Dayton and Baymiller streets at a cost of \$400,000. Bids for the separate branches will be advertised for shortly. Garber & Woodward, Andrews bldg., are the architects.

Walter Haldy, 9th and Sycamore streets, had plans drawn by architect, Max Kau for an apartment building to be erected on Rohs street at a cost of \$40,000.

Fred H. Lingoner, will begin the building of four residences at Millsbrae and Oakley avenue at a total cost of \$15,000.

G. D. Meyers, Secretary of the Edwards Mfg. Co., contemplates the erection of a \$10,000 residence on Observatory avenue.

Robertson and Fahnstock are drawing plans for a \$25,000 Nickelodeon for Lawrence Busche to be erected on Colerain avenue.

Cleveland.—The Master Plumbers' Club, of this city, which is a social organization, had its annual meeting on Jan. 7th and elected the following officers: Fred Miller, president; J. M. Keiper, vice-president; Philip Pickett, treasurer; Jas. J. Brotson, secretary; Jas. Brotson, guard. Lunch was served and the meeting was addressed by the new officers.

Akron.—The Akron Plumbing & Heating Co. is moving into its new quarters at 276 S. Main street. This will increase its shop facilities and give it a more elaborate show room, in all about 3,000 feet of floor space.

H. P. Cahill Co. has been awarded contracts for plumbing at Lane and Robinson schools, amounting to about \$5,000 each.

Slabaugh & Baughman, 37 S. High street, have been awarded the contract for installing twelve toilet rooms in the Welch block on Main street.

Landis & Maloy, 64-66 Exchange street, have remodeled their building, locating their shop in the basement, giving them spacious room and greatly increasing their shop facilities. The first floor affords a large show room with stock room on the side. They have been awarded contracts for plumbing in thirty new houses.

The Kraus Kirn Co. has just completed a plumbing and steam heating contract for the Goodyear Rubber Co., amounting to \$18,000; also plumbing and steam heating at the Goodrich Rubber Co.'s new office building amounting to \$20,000. Mr. Kirn says the past year has been very prosperous and the outlook for the coming year is bright.

F. A. Stadtmiller, 875 S. Main street, has taken out permits for plumbing in John Henderer's new house, 931 May court; also a new double house being erected by Mrs. Anna Woodward, 307 Lake street. The work will amount to about \$1,500.

Downing & Thorpe, 164 Ira avenue, have been awarded contracts for plumbing in two new houses, 78 and 80 Faylor avenue. They are now completing plumbing work in Mrs. Criss' new house on Rhodes avenue.

Dauntless Printing Co., 204 South Main street, has completed plumbing and steam-heating in E. C. Shaw's fine residence on Portage Path, amounting to \$10,000.

Oliver Hoffman, 740 North Howard street, is installing plumbing in the old homestead of the Misses Kimball, 189 Talmadge avenue.

W. J. Wood, 15 West Thornton street, has secured the contract for the plumbing in a new ten-suite terrace on the corner of College and Buchtel avenues belonging to Mrs. Proethal. The contract amounts to \$3,000. On Feb. 1st he will begin work on Guy Norwood's new residence, consisting of plumbing and installation of vacuum system.

Emil Rett, formerly connected with the firm of Limbert-Smith Plumbing Co., has opened a shop at 887 South Main street. The M. E. church on South Main street is being remodeled and Mr. Rett has been awarded the contract for plumbing and installing of four toilet rooms.

A. J. Maxwell, 496 Vine street, has constructed a two-story concrete building in the rear of his residence. He has a fine, well-equipped shop in the basement, the first floor being arranged for a display room.

J. A. Forbes Plumbing Co., 886 East Market street, has just completed work on R. L. Robinson's residence, 700 East Buchtel avenue, consisting of hot water heating, plumbing, five bath rooms, dryer in laundry, and an electric washer. The work amounted to \$10,000.

Patterson Bros., 85 McNaughton street, have just completed the plumbing and hot-water heating of the Fasnot block in Case avenue, amounting to \$3,000.

Dayton.—Schenck & Williams have finished plans for the \$40,000 home to be erected on the heights of Harvard Boulevard in Dayton View. There will be four bathrooms equipped with plumbing fixtures of the most modern design.

Dayton.—A proposed new ordinance increasing the fees for building permits has resulted in an avalanche of applications for permits in the last two weeks, many of those who intend to build this spring having secured permits in order to get them at the old rate. The building permits for the month of January will number over 200 and amount to over \$1,000,000, most of them being for residences ranging in price from \$1,800 to \$4,000. Indications point to a record breaking amount of construction this year.

The general contract for the new eleven story Reibold office building has been awarded to the H. Harig Construction Co., Cincinnati, O.

Sidney.—R. A. Redinbo of this city has been awarded the contract for the plumbing work in the new high school building.

Newark.—The Huffman-Conklin Co., of Columbus, has been awarded the contract for the plumbing and heating installation in the new Masonic Temple in this city.

Niles.—The Sayres Company of Niles, Ohio, has been incorporated with a capital stock of \$10,000 to do a plumbing and heating business and deal in building supplies. The incorporators are Nicholas Sayres, W. V. Sayres, W. O. Sayres, Howard Y. Sayres and Elizabeth L. Sayres.

Cleveland.—The Deisher Plumbing and Heating Co. has been incorporated with a capital stock of \$5,000 by Fred C. Deisher and others.

Lima.—The city council in passing the general appropriation ordinance omitted an item of \$900 for the salary of plumbing inspector for the coming six months. Unless the deficiency is corrected there will be no plumbing inspector in that city.

Toledo.—The Eagan Brothers Co., 237 Erie Street, have been awarded the contract for the heating and plumbing in the new Waite high school. Consideration, \$36,081.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation.*

Whole No. 1056

CHICAGO, MARCH 8, 1913

Vol. 62, No. 10

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

*Domestic Engineering* says: The plumbers who do not subscribe for their trade paper are the ones who throw every piece of advertising matter into the waste basket; look them up in Dun's and you'll find them rated M 4 or not at all.

### CONSTRUCTIVE CRITICISM.

ONE business man whom we know refuses to listen to any complaint from his associates and employees unless there accompanies the complaint a suggestion that will better the conditions under discussion.

He says, "I could occupy half my time listening to tales of woe, and the other half in trying to find a remedy, while those responsible sat back and waited for me to act. By refusing to entertain any propositions not accompanied by a remedy, I save my time and have the pleasure of seeing most troubles solve themselves."

There is much truth in this statement, and many business men have found that the result of such a practice is to increase the efficiency of their employees, and improve the standing of their business.

The same thing holds good in the publication of a trade paper. Manifestly, a trade paper, to do its work most effectively, must bring to its readers helpful suggestions, methods for the improvement of trade conditions, optimistic thoughts that will aid the reader in his business.

The province of the trade paper, as we see it, is to find fault with conditions only when a practical

remedy can be suggested, or to ask for opinions from readers that suggest a remedy.

Unbridled criticism, vilification, disgruntled pessimism, have no place in the upbuilding of the craft. There is enough of it in everyday business that we cannot prevent—when we sit down to read our trade paper, let us have before us the cheerful, helpful, uplifting influence of the best minds in the trade, put there in type for our especial benefit.

There is such a thing, however, as "constructive criticism." This is the kind that sees a fault, suggests a remedy, and in a cheerful, optimistic way does good. Let us have constructive criticism, and let it be frank and above-board, but the remedy must be there as well.

Some publishing offices have capacious waste baskets, which are each day filled with the morbid mutterings of anarchists and pessimists—the practical, red-blooded, inspiring thoughts find their way into print. *Domestic Engineering* is in this class—and expects to continue in it indefinitely.

Let us have the business-building, character-inspiring thoughts of our readers. By so doing we can make a better paper, one which will influence every man in the trade to greater endeavor and to surer profit.

This same spirit of "constructive criticism" can be profitably carried into association meetings and the state and national conventions. Personal bickerings, petty politics, sectional prejudice, have no place there. The broad and important work of the several organizations is well defined—the thing needed is interest in getting that work done, not the personal aggrandizement of any one member or faction.

This is a big subject, big as the whole world of business, big as the opportunities for its practical use. And it takes **big** men to practice it. Are you one of the **big** men of the craft? If you're not, how do you expect to become so, except by the practice of the **big, broad-minded principles** that have made it possible for the others whom you look up to, to become the factors that they really are in the trade?

Those men have utilized the principles of "constructive criticism." There is no patent on the idea—nothing to prevent **you** from growing bigger and broader in your own sphere by the same methods.



# Heating of D. & H. Shops, Watervliet, N. Y.

Large Open Structures That Constitute the Usual Type of Railroad Shops, Present Problems in Heating That Require Special Treatment

FIVE of the new buildings composing the railroad shops of the Delaware & Hudson Co., at Watervliet, N. Y., are heated by a hot blast system the apparatus consisting of heater coils, fans, motors, and systems of galvanized iron piping for distributing the heated air. All of this apparatus is situated above the lower members of the roof trusses, and are anywhere from 30 to 50 feet above the floor. The engineering department of the D. & H. R. R. Co., Mr. Caracristi, consulting engineer, and Mr. Coutant, chief draftsman, designed the building and the heating apparatus.

As practically all of the floor space of these shops is utilized continuously, and as the entire floor of every building is served by traveling cranes, it was necessary to place the heating apparatus entirely above the cranes. This arrangement utilizes no otherwise useful space, as the entire piping system is located in the roof trusses with vertical drops along the walls and columns.

The buildings in which the hot blast system of heating was used, are the freight car shop, having two units, the hammer shop, the planing mill, the foundry and the main shop, which latter is heated by eight units. The weights of the fans, heaters, and galvanized iron used in these thirteen

units total 55,000 pounds for the fans, 332,000 pounds for the heaters, and 105,000 pounds of galvanized iron.

These thirteen heating units were erected during the winter weather of 1911 and 1912, and were completed in July, 1912. Anxious to rush the work to completion as fast as possible, it was necessary to erect the apparatus in the main building before the walls and roof were in place. The severity of the weather at times necessitated a suspension of the work, as reports from the superintendent in charge showed that for days at a time the melting snow from the roof would form a glare of ice over the iron work. A wind of eighty-two miles an hour during cold weather was reported at one time, and caused a suspension of work for several days.

Under such conditions as these, it was almost impossible to make rapid progress with erection. In erecting the fifty-three tons of galvanized iron piping no staging was used with the exception of one instance when a branch connection requiring about a week's work was erected. The cranes, which are immediately below the roof trusses supporting the heating ducts, supplied the lack of staging in many instances. The ducts are run through the roof trusses, being supported by the lower members and are held in place by iron straps. The galvanized iron piping was shipped in sections to Water-

\*Data and illustrations by courtesy of the B. F. Sturtevant Co., Hyde Park, Mass., who built and erected the system.

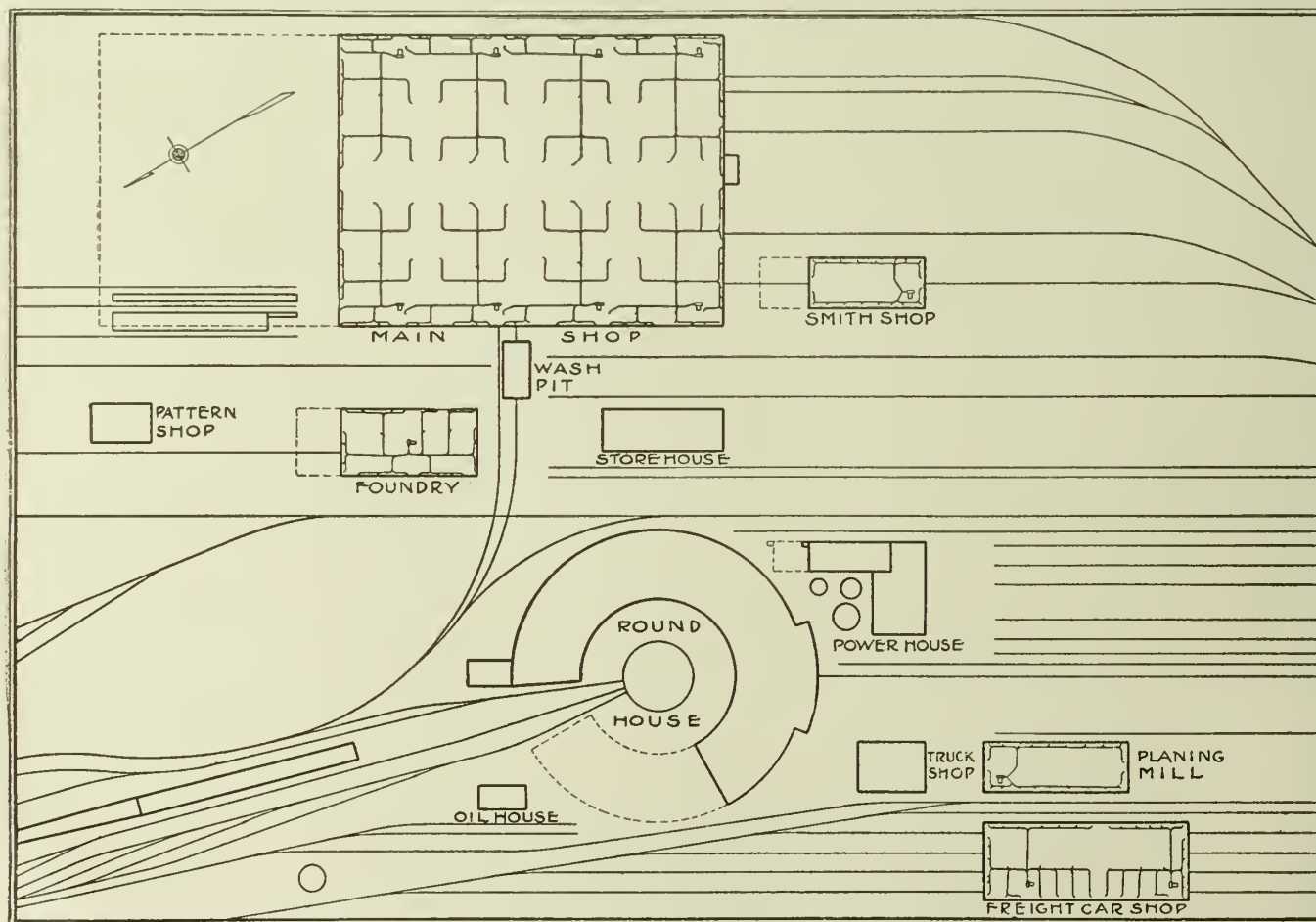


Fig. 2. Arrangement of Delaware & Hudson Shops at Watervliet, N. Y.

viet. In erecting these galvanized iron ducts as long a duct as could be conveniently handled was assembled upon the floor and then hoisted into position. All of the piping was riveted and soldered.

The fans and heaters were arranged upon platforms situated in the roof monitors. These platforms are built of 15-inch steel "I" beams, upon which are placed 5-inch by 10-inch wooden beams, and a flooring of 3-inch planking. In Fig. 2, which shows a plan view of a portion of the railroad yard containing the shops, there will be found indicated the general outline of the heating systems in the five shops which are heated by the hot blast system. The accompanying table summarizes the apparatus furnished for the buildings, giving the sizes, capacities and speeds of the fans, the heating surface of the heaters and horsepower of the motors.

Building	App. No.	Size	Vol. C.F.M.	R.P.M.	Sq. ft.	H.P.
Main Shop....	1	160"	40,000	199	3360	22
	2	160"	40,000	199	3360	22
	3	120"	28,000	260	2688	12
	4	120"	28,000	260	2688	12
	5	120"	28,000	260	2688	12
	6	120"	28,000	260	2688	12
	7	120"	28,000	260	2688	12
	8	120"	28,000	260	2688	12
Hammer Shop	1	110"	21,000	290	1904	10
Freight Car..	1	160"	40,000	199	3360	22
	2	160"	40,000	199	3360	22
Planing Mill..	1	120"	28,000	260	2016	12
Foundry .....	1	140"	36,000	228	3360	18

The fans which are of the steel plate type are all belt driven by alternating current induction motors.

Figure 1 gives a general view of the shops as they appeared in the spring of 1912.



Fig. 1. Shops of the Delaware & Hudson Railroad Co., Watervliet, N. Y.

## Portable Bath Tubs—Their Use in Hospitals

THE use of portable bath tubs for the convenience of patients in hospitals has been quite common for a number of years, and at the present time is quite indispensable in some cases.

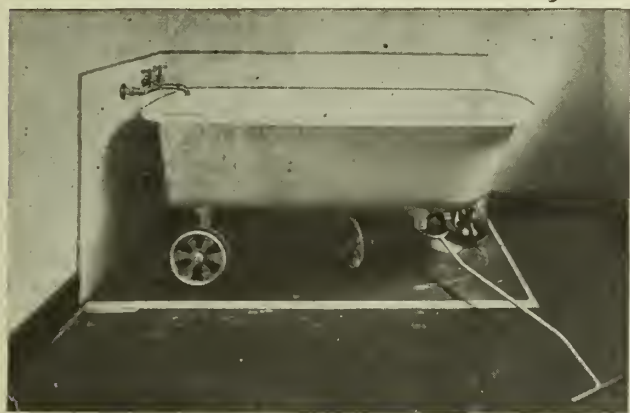


Fig. 1. One Type of Portable Bath.

The accompanying illustration shows a type of portable bath tub which is used in one of the big New York hospitals.

The tub is made of an outer case of steel, having an inside lining of tinned and planished copper of 16-ounce weight, while the outside is white enameled. The rims are cabinet-finished oak. The steel case is firmly riveted to the cast iron supports. It is five feet long.

The tub, as shown in the illustration, is provided with

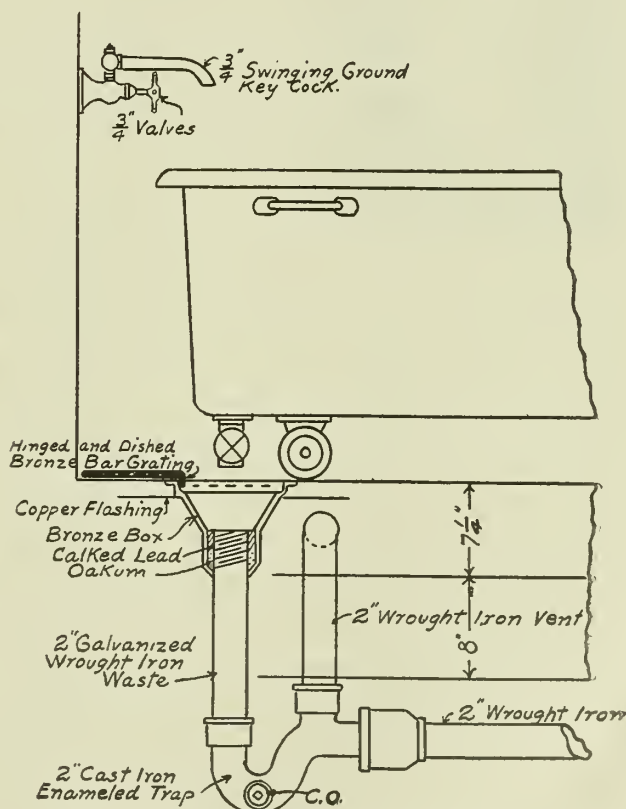


Fig. 2. Detail of Connections for Portable Bath.



a suitable yoke and pull for moving it, and has four 6-inch wheels fitted with rubber tires.

Polished steam metal combination supply faucets, with  $\frac{3}{4}$ -inch hot and cold supply pipes with compression handles are provided in the rooms where the tubs are stored, for filling them.

The tub is provided with an iron strap and large size open way emptying valve.

For emptying the tub, a special brass floor drain box

is provided in the marble floor, a detail of which is shown in Fig. 2.

The drain box is trapped with a 2-inch trap, with 2-inch wrought iron vent and has a 2-inch wrought iron waste.

A hinged and dished bronze bar grating is provided, arranged so that it may be thrown back. The tub is emptied by means of a slip tube, which is attached to the discharge pipe of the bath tub and extended down into the drain box.

## A Few "Don'ts" to Iowa Master Plumbers

Paper Read Before the Recent Convention of the Iowa Master Plumbers at Sioux City, by Wm. O. Ewinger of Burlington

**D**ON'T try to run a plumbing business without a profit; at the very least add ten per cent above your expense account.

Don't knock on your competitor because he is doing well and getting business at a profit. Get busy, find out how he is doing it, and you will learn it will pay better to get in that rut.

Don't take a job at another man's figures, if you should know his price, simply to beat him, as he may have made a mistake.



William O. Ewinger,  
Burlington, Iowa.

Don't forget to keep your eye on the ten per cent above expense. Include freight, drayage and boxing in your expense account.

Don't forget that you must think you cannot and never will prosper unless you get a profit.

Don't forget there is a jewel in every pile of rubbish, may it be ever so small. So you must believe there is about your competitor some place he has a jewel you can use.

Don't be like a monk inside four walls, praying to God and thanking him because he is so good. Get out of the four

walls; be a man out in the world, not in the world like the monk.

Don't forget the plumber is more of a necessity than the carpenter or any other craftsman. The city cannot do without him.

Don't forget that 90 per cent of the people want you to get a profit.

Don't forget that it is your own fault if you don't make money.

Don't forget that you always have enough friends that are willing to pay you a profit; why shouldn't the man who runs to all the shops pay his profit?

Don't leave this convention for your home with bad intentions. If your competitor is in this room go to him, have a talk with him that will bear fruit when you get home. He has at least some jewel you can use. Whatever is put together here on earth by true brotherly love let no man put asunder. There are *men* in this convention.

Don't forget we live in the best state in the Union, and we live in the healthiest state in the Union.

Don't gamble if you expect to prosper in the plumbing business.

Don't drink too much liquor; drink if you will, but not too much.

Don't think that all that is necessary is to come to this convention, legislate and go home and make money.

Don't be a man at this convention only; be one at home, on the streets, on the highways; be a *man* always.

Don't pass by your competitor without bidding him the time of day, no matter what he has done. You may need a 4-in. soil elbow or some other fitting that he has, and you may need it badly.

Don't forget that your competitor has a heart and a set of brains; don't treat him as a competitor, but treat him as you would your erring son or daughter. It will bear much fruit and better fruit.

Don't forget we live in a state where milk and honey flows. Are we master plumbers getting our share? The reports are such that we are not. "Why not?" is the problem to solve. Just think for one moment, a lifetime at this business and not be able to get a trip of any kind, or a recreation of any kind such as nearly all other merchants enjoy.

Don't forget if your present competitor was in the shoe, cigar or meat business you would probably be doing all your trading with him, and not only that, but you would be boosting for him. Again I say, this man has a jewel about him. Get out in the world. Get right with him, and learn to be broad-minded. Don't allow yourself to be finding fault with every move he makes. He makes changes. Are you not making some?

Don't forget a *broad-minded* competitor can smile, look on, say little, attend to his own business; let others alone, make money; get right with himself; get right with you, and get right with everybody.

Don't forget, you younger plumbers, that your older competitors have grown up with their friends, who go to them for business that other men cannot get and should not have, as long as these friends are friends. Why should you go and knife your price just to get the other fellow to come down? Where do you get anything out of it? These business methods do not pay bills.

Don't forget that you cannot abuse your jobber and get credits due you, as this abuse has brought on the stand the Central Supply Association has taken.

Don't forget that it is only right that you should allow your notions to be changed.

Don't forget that experience that was painful you can now look upon with pleasure.

Don't forget that the rich people in your city are always working you to get their work done cheaper than anyone

else, and as a rule they get it done at your expense. Go to them for something in their line and you will find you always pay them a handsome profit for it.

Don't forget that all men in all the factories and drygoods stores, up and down the streets, are not allowed to smoke while at work, while you allow your plumber and helper to consume at least one hour a day that you pay for. This money should be in your safe. Your journeyman plumber gets more pay than these factory men and works less hours. This is a leak in your profits.

Don't forget that if you don't make money as a master plumber you are no producer, and prove no good to the community in which you live.

In closing I wish to say: The National Association is likened unto a big tree. It did take root, and has now grown to a wonderful size, and when you cast your eye out over this broad land of ours, you will find the great tree has branches of wonderful size, doing some wonderful work. The body of this tree is that of our fathers, who have nearly all gone before us. They did wonderful work building this big tree. It has grown so large that the branch spreading out over this grand state of Iowa has reached out until the limbs cover the entire state. Look at it, but oh, my, what a pity that so many of the branches bear small fruit, some sour fruit, and some decaying fruit, and some no fruit at all.

I tell you, gentlemen, here in this convention, to waken to the fact that in unity there is strength. We have strength and have power. Use it to get others in. Use it at this time. When you go home from here get right with yourself, get right with your competitor, and make some money. Get your share and be loyal to the Iowa association. We will then win a victory that will put us on a par with the other lines. Just think a little above the village blacksmith. Will you try? Will you try?



### COCK-ROACHES I HAVE MET.

By A Plumber Who Killed 'Em.

'Twas a dark and chilly night in February away back in the early days of plumbing, when bug-ridden wooden bath tubs were reposing in every house. Hogan and I were crawling around like fool Teddy Bears, trying to fix a bad leak in one of them d—m wood tubs. And a divil of a time we had of it. I'll never forget it as long as I live. The memory of that night is still clear in my mind. It wasn't the job of fixin' the leak that bothered us particularly—it was the live company of six-legged on-lookers that pestered and tormented us.

These little brown-skinned citizens of the bath-room, known otherwise as cock-roaches, were marching down the walls in solid battalions, and drilling back and forth on the floor in single and double file.

Hogan tried to hit them with his Stillson every minute or two.

"What's the matter?" says I. "Holy Jumping Jehosaphat!" says he; "here's one that's the grand-daddy of them all." And then, bang! smash! Hogan let go his Stillson at him, and the roach dropped dead.

Poor Hogan was liked to have been eaten alive by 'em. "Help!" says he. "Quick! or I'm a goner," says he,

spluttering and swearing. I turned around and raised my candle to get a good look at Hogan. Now to say I was surprised would be putting it very mild. I've read about bats in Mammoth Cave. I've read about flocks of wild pigeons that darkened the sun, but them there cock-roaches had 'em all beat to a frazzle. They hung from the ceiling like stars in the milky way; they covered the walls in a living mosaic; they scurried around on the floor in a living carpet.

There were roaches as big as mice, and some as little as ants. But every confounded one of 'em was a live wire and looking for a scrap. Hogan and I had no sooner discovered 'em than they discovered us. They swarmed up our legs as though they were Japs attacking Port



"Hogan Let Go His Stillson, and the Roach Dropped Dead."

Arthur. They aviated down on our heads from the ceiling. They paraded down our necks, four abreast; and they formed a cold and clammy procession up and down our backbones. We no sooner brushed them from our cheeks than they proceeded to march into our ears. We opened up our mouths to cuss and they dashed madly in. They certainly were the most persistent little devils that I ever saw around a bath-room. Maybe they had got sore on us because Hogan went and killed the big one that looked like their grand-daddy. He might have been the king cock-roach or maybe he was their president. I don't know which, because it's hard to say whether cock-roaches have a monarchical or a republican form of government. Anyway I know they can live comfortably in either kingdom or a republic.

Well, we finally fixed that darn leak after a divil of a time. Since then I have seen cock-roaches and cock-roaches, but never any that could come up to these in point of downright gall and combativeness. They were certainly bold little creatures and they had a sort of military grit and backbone to 'em. Hogan used to get philosophical whenever the subject of roaches was mentioned. He would say that cock-roaches are like the poor—they are always with us.

First Master Plumber—"My man Bill got tangled up in an accident. My team ran away with him, and he got laid up for five weeks."

Second Master Plumber—"Well, my man Sam also got mixed up in a bad affair. He ran away with my team, and got laid up for five years."

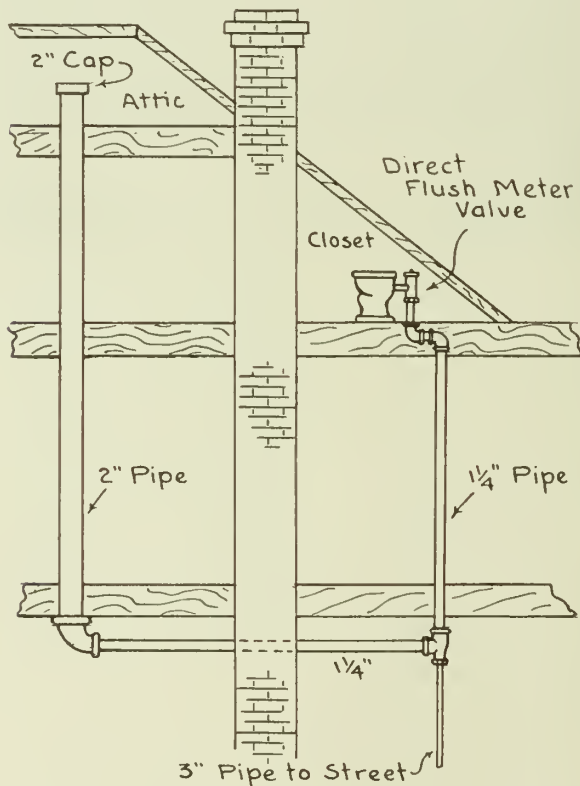
Hagerstown, Md.—John H. Davies, plumber, has taken in Ernest W. Moller as a partner. The business will be continued at the same location, 28 E. Franklin Street, under the firm name of Davies & Moller.



# Questions and Answers

## IS THIS INSTALLATION PRACTICABLE?

Editor "Domestic Engineering":—Recently I had occasion to install a water closet in a bed room closet with a sloping roof that would not permit the use of a common closet tank, so I used a flush meter closet. The pipe was so small that it did not flush fast enough. I went to the basement and cut a tee  $1\frac{1}{4} \times \frac{3}{4} \times 1\frac{1}{4}$  inches and ran a 2 inch line up in to the attic and capped the top air tight. Then I ran a  $1\frac{1}{4}$  inch line direct to the flush meter and turned on the water. The 2 inch pipe gradually filled about three-fourths full and when the closet was flushed the pneumatic pressure at top of 2 inch pipe would force



Sketch Showing Installation of Flush Meter Closed.

it out as if there were a  $1\frac{1}{4}$  inch service all the way from the street. Enclosed find sketch of the installation. Kindly advise if this is practicable.

Marshalltown, Iowa.

"Jack."

We think "Jack's" scheme for providing an adequate flush for the flush meter is a good one. Experience shows that these valves work much better under tank pressure than under direct pressure, and the scheme that "Jack" has devised, in a way provides a steady pressure such as a tank would, and he has the additional aid of pneumatic pressure.

In time the stand pipe will lose its air, owing to the fact that water will absorb air, and the air chamber will become waterlogged, the pneumatic pressure then being lost.

We would therefore advise the placing of a cock at the top of the stand pipe, which can be tapped into the cap. When the pipe has become waterlogged, the main stop can be closed, the water drained down, and a new supply of air admitted through the cock.

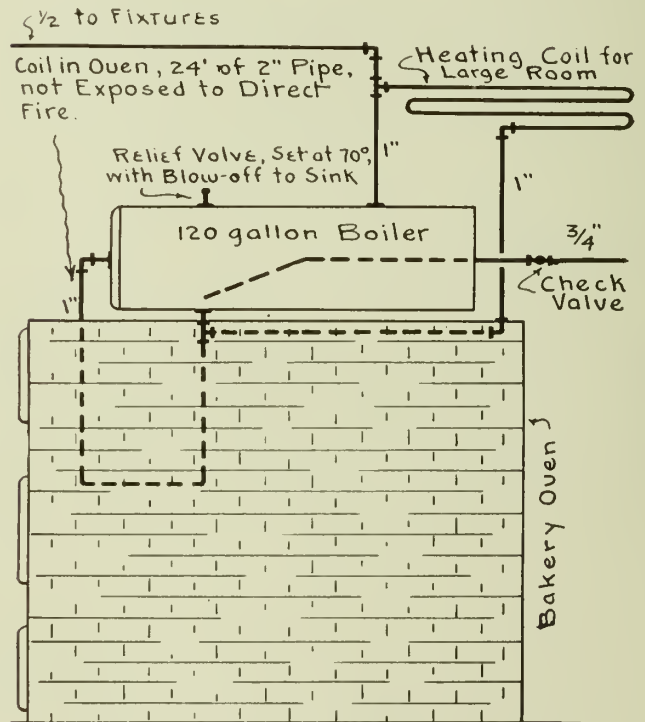
## A QUESTION ABOUT HOT WATER BOILER IN BAKERY.

Editor "Domestic Engineering":—Enclosed please find blue print of proposed work to be installed in a bakery, which fully explains itself. Kindly advise us the practicability of the same. The question which enters our minds is this, the fires are banked Saturday night and no water is drawn from the hotwater boiler until Sunday night as the oven fires in the bakery are never allowed to go out. On the week days water is drawn all the time. How much water will the coil heat? Would it be advisable to install a smaller boiler?

Duluth, Minn.

F. S. E.

In accompanying sketch we show correspondent's plan for heating a 120 gallon boiler from a 2 inch coil in a



Heating Water from Coil in Bakery Oven.

bakery oven. We know of this same plan having been followed successfully and we have seen another very simple plan, which may possibly appeal to our correspondent. This plan consisted in burying the boiler in sand on top of the oven, the heated sand serving to heat the boiler without the use of a coil.

When a coil is embedded in live coals, it is estimated that 1 sq. ft. of heating surface will heat 15 gallons of water in the boiler. As 20 inches of 2 inch pipe represents 1 sq. ft. of heating surface, it will be seen that correspondent's coil is large enough to heat 225 gallons of water under the favorable conditions named above, which is 105 gallons more than the capacity of his 120 gallon boiler. There is the radiator also to be taken into account, however, and of its size we know nothing. In this connection we would say that a coil will heat about twice as

many square feet of radiation as it will heat gallons of water in a boiler.

We should imagine that the two inch coil would not only heat the boiler, but 150 to 200 feet of radiation besides, and knowing no more than we do about the working conditions surrounding this job, we should say that there is too much coil used.

"F. S. E." does not say anything about the use of the coil in warm weather.

With a relief valve in use set well within the limits of safety, we should not look for any trouble.

As long as a relief valve is in use, there is nothing to be feared from the use of a check valve on the supply, but without such a valve the result of thus closing all chance for expansion might be attended with serious results.

Not having full information as to the conditions, it is difficult to advise definitely, but we trust what we have said will help "F. S. E." solve his problem.

### IS GENERATOR CONNECTED PROPERLY?

Editor "Domestic Engineering":—Is the Honeywell heat generator properly connected? What is wrong, and if

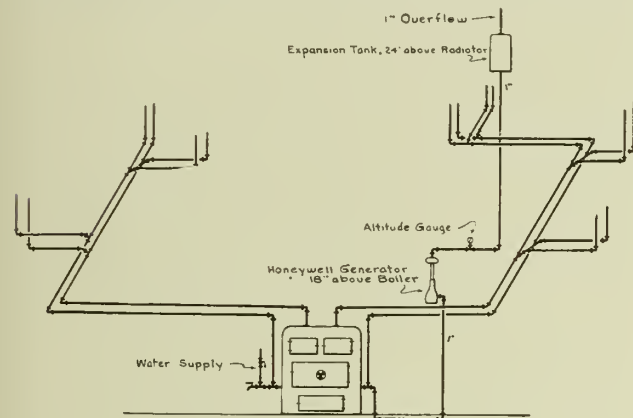


Fig. 1.

the boiler is amply large with heavy firing would you look for any trouble in this system? Has been in use for five years and heated perfectly.

Spokane, Wash.

M. E. I.

There seems to be two or three reasons why this job would probably not give the greatest satisfaction. In the

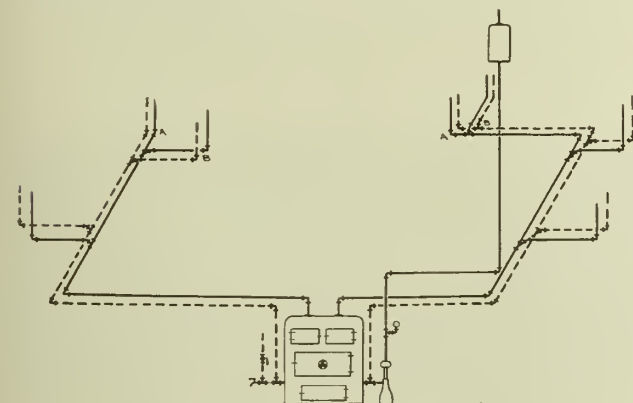


Fig. 2.

first place, we would not advise connecting the generator as correspondent shows in Fig. 1.

In the second place, hot water heating as practised

with the open system, had some methods of piping which are not considered good practice when a generator is applied.

Note in Fig. 2 the radiators supplied by the connections marked A. These risers come at the extreme end of the main, and it would be better practice to let the end of the main connect with a first floor radiator, and take a branch from this connection to supply the risers. In this case, we would let the main, which ought to be  $1\frac{1}{2}$  inches at this point, end with the radiator marked B in Fig. 2, and connect the risers A from the connection B, from the side or with what is known as a D connection, that is,

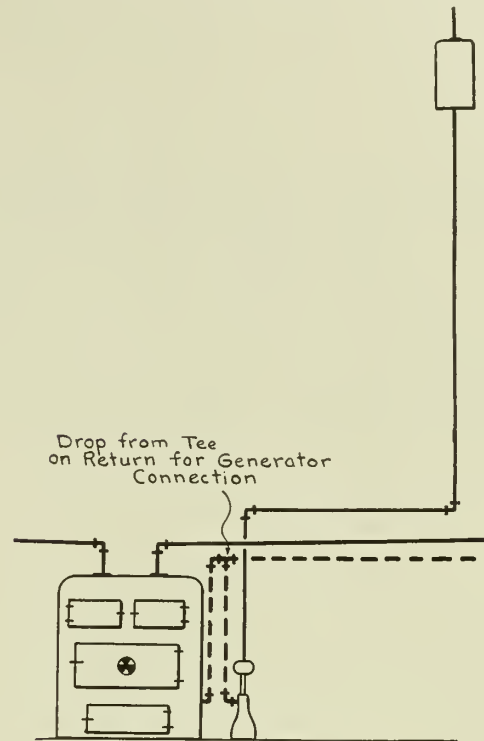


Fig. 3.

tipping the tee down to a 45 degree connection and trapping the connection to the riser.

Another method of connecting the generator is shown in Fig. 3. In this case the pipe, presumably 1 inch, which connects with the side opening of the generator, is taken directly from the horizontal return main near the boiler, the tee pointing directly downward toward the basement floor.

The expansion line should run to the ceiling of the basement, and on the ceiling to the point where a direct rise is made to the expansion tank.

Trenton, N. J.—Contract for installing heating system in the new jail in this city has been awarded to John A. Dowling, whose bid was \$6,460.

Waterloo, Ia.—Contract for plumbing in the new building of the Stewart-Simmons Press was awarded to William Conwell of this city, for \$4,500.

Appleton, Wis.—W. S. Patterson, of this city, has secured contract to install a heating system in the new Masonic Temple at Menominee, at a figure of \$3,363.

Colorado Springs, Colo.—Contract for plumbing and heating the Myron Stratton home has been awarded to the St. John Plumbing & Heating Co., 313 N. Tejon Street, the contract price being in the neighborhood of \$24,000.



# Convention of Missouri Plumbers at Joplin

Two Days' Meeting Was a Profitable One, With a Satisfactory Attendance and Great Interest Manifested by All Those Present

**T**HE thirtieth annual convention of the Missouri Association of Master Plumbers was held at Joplin, February 24 and 25, with headquarters at the Connor Hotel. The meetings were held in the club rooms of the Joplin Commercial Club.

A special car on the early morning train brought in the St. Louis and Kansas City delegations. The night ride did not in any way interfere with the morning meeting and at 10:20 all delegates were in the hall.

Great interest was shown in this first meeting, and continued through the two day session. Many of the delegates were heard to remark that never before in the history of the association has there been a more successful meeting.

## Monday Morning Session.

The meeting was opened by President Reisel, who after extending a cordial greeting to the delegates, gave an outline of the work for the meeting, stating that it should stand for education, betterment of sanitary conditions, and also to give the public assurance of good work. He said that the people in the smaller towns do not realize the importance of good plumbing and the danger to health that arises from poor work.

H. B. Schulte of Joplin was then introduced, and in behalf of the Joplin association extended a hearty welcome.

Mr. Schulte then introduced the mayor of Joplin, J. F. Osborne, who said that he would like to have all stay in Joplin. The mayor's remarks brought out many of the advantages of the city, in the mining of zinc and lead, as well as being the natural center of a rich farming territory. He emphasized the important position the plumber occupies, and said that if all plumbing were installed in a proper manner, there would be less need of doctors and fewer undertakers.

Mr. Schulte introduced Col. W. Sapp, National Committeeman from Kansas, of Galena, Kansas, who spoke on the subject: "The Man Who Hires." He stated that he told some one that he was a master plumber, and now must make good. "When you hire a boy you look for one with three qualifications, gall, nerve and judgment. I have all of these so I qualify. There is much the public does not know about the master plumber, and it is a good thing to meet and talk over matters of business. You plumbers take care of the health welfare of the public, so do not cut down the price, or install defective work and

expose health. The plumber should ask for laws to protect the public and not the plumber."

After telling some of his experiences with the plumber, he gives his idea of what the relationship between plumber and customer should be. The plumber should receive the same treatment as the doctor and should make friends with his customers. The apprentice should be taught to treat the customer with courtesy.

Frank Yale, president of the Joplin Commercial Club, stated that the object of the convention should be to do everything that would elevate the profession, and the work of the meeting is evidence that the goal is high.

B. J. Crane of the Joplin Gas Co., spoke in favor of a state plumbing law. Each city and town should have a plumbing code and Joplin especially needed an inspector.

President Reisel introduced C. E. Walther, plumbing supervisor of St. Louis. Mr. Walther had been engaged in the plumbing business until last October, when he was appointed to this position. He spoke on the sanitary conditions of St. Louis and the many efforts to evade the plumbing law. He said that a plumbing law is better for a smaller town than a city, for they can arrange and plan for the future and avoid many things that a city has to overcome later on. He hoped the day will come when there will be a national law to govern sanitation.

J. P. Cunningham, of Kansas City, commended the good work that has been done in regard to the new state law. The small town needs just as much protection as the city. The association should assist the plumbing department in enforcing the existing laws.

President Reisel appointed the following committees: Sergeant-at-Arms, J. W. Hamilton, Joplin.

Credentials, W. L. Hanson, Kansas City, W. F. Clamp, St. Louis, L. B. Zumbroff, Aurora.

Resolutions, Hy. Moore, St. Louis, J. P. Cunningham, Kansas City, J. J. Lawler, Springfield.

Auditing, C. E. Cook, Springfield; Ed. Ennought, St. Joseph; Jno. Schulze, St. Charles.

## Monday Afternoon Session.

A number of resolutions were now read by the secretary and referred to the resolution committee.

A letter was read from National President Frank J. Fee of New York, giving an outline of the work being done



Chas. Burgess and  
H. B. Schulte, Joplin;  
A. Rabbanack, St. Louis;  
John Schulze, St. Charles.



M. C. Engaas, Kansas City;  
L. A. Bland, H. Mueller Mfg. Co.;  
W. F. White, of Ruud Mfg. Co.  
Snapped at zinc mines.



C. E. Jones, Kansas City;  
W. C. Kerwin, Joplin;  
H. G. Hayes, Kansas City;  
L. McNamara, St. Louis;



W. F. Clamp, St. Louis;  
C. E. Cook, Springfield;  
L. McNamara, and  
C. P. Carroll, St. Louis.

by the National Association and outlining recommendations.

L. McNamara, of St. Louis, read an interesting paper entitled "The Master Plumber," which it is our pleasure to print herewith.

**Paper by L. McNamara.**

**I**S he master of the business end of the plumbing business? He has learned the trade and mastered the practical end, and has spent ten or fifteen years working as a journeyman; but the day he hangs out his shingle is the day he commences to learn the business end, and strange to say, but nevertheless true, he is the last one to realize his position. His practical egotism has blinded him.

Brown & Mulcahey, his competitors, are done fairly well. They worked journey work with him some years ago and he did not consider them anything extra, and would not think of asking them for a few pointers. Now however, he falls for the speculator and the foxy general contractor, and last, but not least, our friend the jobber. Through their combined efforts he blossoms out in a few years and becomes one of the heavy operators. If his competitors ask him how he arrives at such a low bid he will assume the air of superiority, and in a vague way tell of his efficient system of doing business, being a heavy buyer, and so on, and he told more of a truth than he knew when he mentioned system.

There is a system by which the average plumber starting in business is figured, and the victims of this system are many; as competitors they are ruinous. Those who try to meet these competitors will become one of them. We read in the trade papers about overhead expenses; we hear the orators at the meetings tell us how to make money. Meet these bright lights in competition, and you will about conclude the only time they figure overhead expenses is when they are soaring in their flights of oratory.

The Master Plumbers' Association is a business organization. Our standing in the business world is based on commercial rating. In, around and about the whole proposition is the word "Credit," and it is up to the men of standing in the business, to show the jobbers that they do not approve of the present credit system. The remedy I would suggest is that you center your force on that one vital point, organize and patronize the jobber that proves to you that he has a clean credit system, one that will place every man on an equal basis and one that will elevate the standard of the master plumber as a business man.

"How to Make Money in the Plumbing Business," was the title of a very interesting and instructive paper by M. C. Enggas of Kansas City, who brought into it thoughts that were well worthy of the serious attention of his hearers. We reproduce the paper herewith.

**Paper by M. C. Enggas.**

**I**T gives me great pleasure to be with you here in Joplin today, and I am especially glad to renew some pleasant acquaintanceships formed last February in Springfield, at the occasion of our last State Convention. This essay that is to be read to you today, was to have been delivered last year in Springfield, but on account of a lynching which had taken place a few days previously, I was afraid to risk its delivery.

If there is anything that a delegate, after traveling three or four hundred miles, likes to hear, it is an essay on how to run a plumbing business, delivered to a body of men who are thoroughly familiar with the subject, especially as the local organizations sometimes leave the brainy men at home—I will, however, take the privilege of asking

the chairman of this convention to notify the sergeant at-arms to insure me full protection against any bouquets or missiles of harder substances which may be thrown during its delivery.

My twenty-five years of business experience as a master plumber, has not been one continuous round of pleasure. I have had my pleasant dreams, and also sad awakenings to the fact of the thanklessness on the part of the general public in not giving the plumber his just dues.

Life insurance statistics show that the life of man is two years and some months longer today than it was twenty-five years ago, largely due to the improved sanitary conditions directly brought about by improved plumbing. No other line of business in the last decade has been so thoroughly revolutionized as has our craft. It has always been a great source of wonder to me that



J. P. Cunningham, Kansas City, Past President; Edw. C. C. Reisel, St. Louis, Retiring President, and G. A. Wood, Springfield, Newly Elected President Missouri Association

notwithstanding the immense amount of plumbing done throughout the states, there are so few plumbers who attain even a modest competence. Government statistics show that ninety-five per cent of all business men fail. What per cent of men embarking in our business succeed?

Thirty years ago plumbing was a luxury enjoyed only by men of wealth; whereas, today it is almost impossible to live in a house unless it is equipped with a modern, up-to-date plumbing system. When sinks were beaten out by hand, including lead bends, traps and other supplies, it took a man three months to do work that can now be done in one week. One can readily understand why plumbing does not bring better returns. The thirty-one years I have worked in this business have certainly qualified me to figure out the cost of labor and material required to install plumbing in buildings.

For the last two or three years it has been a hard matter to do new work with profit. This has caused me to discard new work almost entirely, and run a jobbing business exclusively. My business last year ran upwards of fourteen thousand dollars giving regular employment to three plumbers, two laborers and one helper. I am in the plumbing business for profit, and not for pleasure. The eagerness for work on the part of some of our master plumbers, has caused them to take contracts at an actual loss, and tends to further depreciate the business. I have known of contracts amounting to \$250 with six or seven bids submitted, with a difference of \$75 between the highest and the lowest bid. It seems as though when men make a failure in any other line of business they become an "angel," or, in other words, a partner in a plumbing firm. Kansas City has produced men in our business who have served an apprenticeship as painters, butchers, bakers and almost any other line of business,



with the exception of that of aviators. They have not so far, been represented in our ranks, as the life of an aviator is very precarious; he goes up in his machine, but very often does not live to tell how he got down—like some of our plumbers in business who wonder, after spending years of time trying to run a business, why they fall so hard, and cannot tell the cause of their want of success.

The plumbing business, as a whole, has a great number of pleasant things about it, but the unpleasant ones predominate. The local, state, and national associations are wonderfully educational to us all; however, their aid, as well as that of the trade papers, essays and other helpful things to elevate and educate our business men, will fail of their effect unless the members are careful in taking each job, no matter how large or small that their estimate should allow them a fair profit. A great number of men take new work at what they say will enable them to "break even," and so keep their employees busy. Nine times out of ten, the reverse is true. In Kansas City work is occasionally taken at what is called a ten per cent margin, with an overhead expense of from twenty-one or twenty-two per cent, leaving them some ten or twelve per cent on the wrong side of the ledger. Instead of the plumber getting what he is entitled to from the public, the public gets everything out of the plumber, with the exception of what little food, clothing, etc., it is absolutely necessary for the existence of himself and his family.

After a plumber is ready to retire, if that time ever comes, one of his most invaluable assets is a beautiful collection of catalogues in his office "library," also a few old-time relics in the same of old closet-bowls and thirty gallon range boilers that have been taken out of old jobs. In my place of business, I utilize old closet bowls as receptacles for growing ferns; in fact, we seem able to get everything out of the plumbing business with the exception of money!

In my opinion, one of the most common mistakes made, is in the misuse of credits. Each contract should be made to carry its own expense. Do not rob Peter to pay Paul; that is, do not take the profit from one job to balance the losses on another. There always comes a time of settlement. One of the best ways in the world of making money is for the business men to discount their bills. The man who settles accounts promptly, and discount his bills, can invariably buy goods cheaper. Dealers want his business and are glad to sell to him. Another mistake is made in allowing the out-of-town salesman to load up the plumber with goods just because he can allow from sixty to ninety days' time; in other words, do not buy gross lots when dozens will do, for the sake of the five per cent allowed the customer.

A few years ago, while my wife and I were taking a ride on a sight-seeing car in Denver, Colorado, the "spieler," in showing the various points of interest, pointed out a small

cottage on a side street; "There," he said, "lived Mr. Blank, a very good man, who used to be in the plumbing business. He was a widower, and when he died, he left every thing to the orphan asylum." Being of an inquisitive mind, and a fellow craftsman, I said: "What did he leave?" The answer was, "Eight children." Being the father of only seven myself, I won't be obliged to encumber the county with such a large bequest.

Great credit may be claimed by our craft for the decrease in epidemics of typhoid, yellow fever and cholera, caused by unsanitary conditions. The last two diseases have been almost obliterated by sanitary plumbing and ventilating systems. This may be illustrated by the improved conditions in the Panama Canal zone, where it was formerly dangerous to white men to live before the new and improved sanitary conditions prevailed. Certainly, the plumbing business has some virtues.

Kansas City, Missouri, can boast of one of the strongest and best local associations in the country. During the past year, our number has been doubled and a great deal of interest shown. The Ladies' Auxiliary, in this city, organized two years ago, has been of great help to us in sustaining the interest and binding the members more closely together.

The great difference in prices asked by various plumbing firms is amazing, as, for instance, the matter of taking out a thirty gallon range boiler and replacing it with a new one. A demonstration lately shown on the blackboard at one of our meetings, illustrates this point. The prices ranged from eight to sixteen dollars on this particular piece of work. The question arises, what per cent of profit is legitimate in the plumbing business? Now this question is not to be answered until the completion of this address; but the writer would be very glad to have one of our successful men kindly notify him on the quiet, as we all have come here to try to complete our education in this, our chosen line of work.

Last February, just as our special train entered the depot at Springfield, many of us will perhaps remember hearing a quartette of operatic voices singing that beautiful and touching ballad: "You Gotta Quit Kickin' my Daug Aroun'." It was sung in such a pathetic and plaintive manner as to impress itself indelibly upon my memory; in fact, from the many "kicks" I have received during my business career, I might have been the original "hound" referred to.

Oftentimes, while sitting at the desk, I fall to dreaming, and, waking with a start, wonder whether the day will ever come when the public will appreciate our efforts and give us the respect and consideration to which we, as business men, are justly entitled; and I trust that the incoming generation entering our craft, will be able to demand better recognition of the value of their services to humanity and the world at large.

Should men who are unsuccessful continue in the trade?



Group of Missouri Plumbers, Secretary C. L. Smith Sitting on Suitcase.



Visiting the Zinc Mine Near Joplin.

It is surely unfair that we be prevented from earning a legitimate profit by unintelligent and incompetent competition. If Providence would place us in the vocation for which we are best fitted, it would be a mercy; but conditions such as these, I suppose, will go on indefinitely, until men become educated to the fact that "labor is worthy of its hire."

#### Other Business.

President Reisel made a verbal report of the work done by the legislative committee, and spoke of the progress in the legislature of the new state plumbing law.

The president appointed a committee consisting of Messrs. Karnes of Carthage, W. F. Clamp and Edw. C. C. Reisel of St. Louis, to be present at Jefferson City when the bill comes up for final vote.

The plumbing law recently adopted by the state of Texas was read by the secretary.

President Reisel was called from the room and a com-

#### Officers Elected.

The election of officers resulted as follows:

President, G. A. Wood, Springfield.

First Vice President, M. P. Connor, Kansas City.

Second Vice-President, Hy Moore, St. Louis.

Treasurer, J. P. Carroll, St. Louis.

Secretary, C. L. Smith, Kansas City.

St. Louis was selected as the next meeting place.

#### Entertainment Notes.

At half-past seven Monday evening a banquet was served at the Connor Hotel and about fifty delegates and guests sat down to the feast. Hy Moore, of St. Louis, acted as toastmaster.

Among the speakers were President Reisel, C. F. Walther of St. Louis, H. Sivewright of Kansas City, and J. P. Cunningham of Kansas City.

Mr. Cunningham presented President Reisel with a gold



Missouri Plumbers at Joplin Starting for Zinc Mines, J. P. Cunningham, "Spieler," Sitting on Canopy.

mittee of three was appointed by Vice-President Wood to secure a suitable gift in appreciation of his services.

#### Tuesday Morning Session.

President Reisel read a telegram from Past National President Hornbrook of Kansas City, expressing regret at his inability to be present, and hoping for a successful meeting.

The report of the sanitary committee, M. P. Connor, chairman, was then read.

The president's report was then read and ordered spread on the minutes.

The secretary's report showed a cash balance of \$557.82 and a decrease of ten members. The treasurer also reported.

After an executive session of an hour, an open discussion took place on the question: "What is a legitimate profit in the plumbing business?"

Thanks were extended to the Joplin association, the commercial club and the trade and local press, for their courtesies.

watch chain and a Knight Templar charm, as a token of appreciation from the association for faithful services during the past year.

At 3:30 Tuesday afternoon a trip was taken to the Sitting Bull and Pocahontas zinc mines, J. N. Short furnishing a large motor truck for the occasion. About thirty delegates and guests enjoyed the treat.

Upon arrival at the mines, which are several miles from the city, the crowd was met by the foreman and conducted through the mill. There could be seen the different processes through which the ore must go before the metal is extracted. Manager H. L. Wood and W. C. Kerwin of Joplin accompanied the party.

While the auto truck loaded with delegates was waiting at the Elks' club, a crowd of school boys came along, and, not able to resist the temptation, showered snowballs at the crowd. Many a derby afterward carried a stove in it.

The history of the owner of these mines, J. M. Short, of Joplin, reads like a romance, and his rise from a day laborer to a millionaire in some seventeen years interested the plumbers who visited the mines very much. He is a



popular man in his home city, being generous with his employees and his friends.

A story is told of his efforts to secure turkeys last Christmas for his men. They were scarce, and someone suggested that he give each man the price of a turkey. "That won't do," said Mr. Short. "The money would go to buy drinks, and I want it to go toward filling the stomachs of the kids at home. It's got to be turkeys or nothing," and turkey it was finally, after a Kansas City packing house had come to the rescue.

The entertainment committee was composed of Chas. Burgess, W. C. Kerwin, and H. B. Schulte, of Joplin.

#### Manufacturers Represented.

The H. Mueller Mfg. Co., of Decatur, Ill., was represented by L. A. Bland, who explained the display of brass goods and regulators in the hotel lobby.

The Phillips Combination Boiler Stand, made by Phillips Bros., St. Louis, was on display, in charge of Hy Moore.

The Ruud Mfg. Co., of Pittsburg, was represented by W. F. White.

#### WE SHOULD ALL PULL TOGETHER.

I have read various articles in the trade papers about business conditions of the trade and have come to the conclusion that our main trouble is summed up as follows: More businesses have been wrecked by internal competition between members of the same organizations than have ever gone down to failure because of the competition coming in from the outside.

Loyalty is conceded to be a most necessary trait to business success—loyalty of the members of any business organization to the whole. Loyalty thus applied means nothing more nor less than co-operation.

Thus it would seem in the last analysis that we find co-operation is a natural evolution from the evils of competition; and competition may be a sort of revolution from the evils of co-operation.

Our national organizations need some radical changes—these must be progressive ones. Every effort must be

made to deal direct with owners in our respective lines. We can only accomplish these results when some method can be found to induce our members to be loyal members. Better have them fewer in number and loyal than great in number and picked up at random. Unfortunately some of the larger firms who have been successful in some particularly large jobs believe they no longer require any assistance from their association. They claim that they can run their own business and forget that for many years the association has fought their battles for them and made it possible for them to get a start. We have too many who are drones as far as raising a hand to assist their officers, either local, state, or national, is concerned. Ed. Braden, San Antonio, Texas.

Boise, Idaho.—The plumbing business conducted by the late Samuel Hartkopf, has been purchased by W. H. Curtis and I. R. Beal.

Allentown, Pa.—The plumbing firm of Rubrecht & Blocher has dissolved partnership. Ralph Rubrecht will continue the business under his own name.

Great Falls, Mont.—The Great Falls Heating & Plumbing Co. has rented Guth's store building, opposite the News office, and work is now going on remodeling the interior.

Elmira, N. Y.—LeValley, McLeod & Co. will erect a building of their own in the near future on East Church Street, where they will remove their plumbing establishment.

Brookings, S. Dak.—R. Miner, who has been connected with the plumbing firm of Skiff & Ray for the past five years, has resigned his position and expects to engage in business for himself.

Poughkeepsie, N. Y.—Edward L. Taylor has resigned as inspector of plumbing of this city, and will, on April 1st, become a member of the Schick-Taylor Co., Inc., the new company being composed of Mr. Taylor and Charles F. Schick, a well known plumber here. The company's place of business will be at 20 Liberty Street, where Mr. Schick has been located for some time.



Members and Guests of Minnesota Association at Their Smoker at Minneapolis, February 19.

# Convention Dates



March 10 and 11, 1913.—The twenty-second annual convention of the Kansas Master Plumbers' Association, at Kansas City, Kan., with headquarters at the Hotel Grand. The officers of the association are: President, A. P. Elder, Ottawa; vice-president, W. S. P. Gill, Hutchinson; treasurer, F. H. Bowers, Emporia; secretary, E. D. Draper, 644 State Avenue, Kansas City, Kans.

March 10, 11 and 12, 1913.—Seventeenth annual convention of the Indiana State Association of Master Plumbers, at Indianapolis, Ind. The officers of the association are: Wm. J. Woolley, Evansville, president; H. H. Highlands, Gary, vice-president; A. E. Werkhoff, LaFayette, secretary-treasurer.

March 11 and 12, 1913.—Annual convention of the New York State Master Plumbers' Association at Buffalo, N. Y., with headquarters at Hotel Iroquois. The officers of the association are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, 161 Columbus avenue, New York City; executive clerk, John E. Dugan, 4 Monroe street, Albany, N. Y.

March 18, 1913.—Twelfth annual convention of the West Virginia Master Plumbers' Association at Wheeling, W. Va. The officers of the association are: President, W. A. Wiedebusch, Fairmont; vice-president, Clyde Brand, Morgantown; secretary-treasurer, E. C. Wiedebusch, Morgantown.

March 18 and 19, 1913.—Spring meeting of National Association of Brass Manufacturers at St. Louis, Mo., with headquarters at the Planters hotel. The commissioner of the association is Wm. M. Webster, 139 N. Clark Street, Chicago, Ill.

March 18 and 19, 1913.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium. The officers of the association are: President, George McCullom, Muskegon; vice-president, James O'Neill, Kalamazoo; secretary, W. A. Decker, Grand Rapids.

April 9, 1913.—Annual convention of the Massachusetts State Association of Master Plumbers, at Boston, Mass. The convention will be held at the Hayward assembly rooms. The officers of the association are: James S. Cassedy, Cambridge, president; Robert Robertson, Beverly, vice-president; John J. Vogel, Boston, secretary; O. S. Kendall, Worcester, treasurer; Richard J. Welch, Lowell, chairman executive board.

April 14 and 15, 1913.—First annual meeting of the National Pipe and Supplies Association, at the Hotel Sherman, Chicago. The general secretary of the association is George D. McIlvaine, of Pittsburgh, Pa.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

April 24, 25 and 26, 1913.—Annual convention of the Texas Master Plumbers' Association at San Antonio, Tex.

The officers of the association are: President, W. E. Thacher, Fort Worth; vice-president Joseph Metzger, Laredo; secretary, J. O. Montrieff, 710 Commerce Street, Fort Worth.

May 14, 1913.—Annual convention of the Connecticut Master Plumbers' Association at Hartford, Conn. The officers of the association are: President, F. C. Booth, Bridgeport; vice-president A. J. McManus, Hartford; secretary, R. T. Rock, 102 South Avenue, Bridgeport.

May 19, 1913.—Annual convention of the Nevada Master Plumbers' Association at Reno, Nev. The officers of the association are: President, Harry Kelly, Reno; vice-president, F. W. Cook, Reno; secretary, B. M. Lewis, P. O. Box 26, Reno.

May 20, 21 and 22, 1913.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky. The officers of the society are: President, Thomas J. Claffy, City Hall, Chicago; vice-presidents, Dr. H. K. Beatty, Pittsburgh, Pa.; W. J. Yackley, Dayton, O., Charles M. McHugh, Cedar Rapids, Ia., R. H. Ellithorpe, Fresno, Cal., Jas. E. McGrath, Louisville, Ky.; secretary and treasurer, L. J. Lawler, Pittsburgh, Pa.

May 27, 28 and 29, 1913.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind. The officers of the association are: President, R. D. DeWolf, Rochester, N. Y.; first vice-president, J. F. Lewis, Detroit, Mich.; second vice-president, J. L. Hecht, Chicago; third vice-president, E. Darrow, Indianapolis, Ind.; secretary-treasurer, D. L. Gaskill, Greenville, O.

June 5, 6 and 7, 1913.—Annual convention of the Colorado State Association of Master Plumbers, at Colorado Springs, with headquarters at the Antlers hotel. The meetings will be held in the chamber of commerce auditorium. The officers of the association are: N. W. Haas, Colorado Springs, president; J. C. St. John, Colorado Springs, vice-president; Peter Menzies, Denver, secretary.

June 17, 18 and 19, 1913.—Thirty-first annual convention of the National Association of Master Plumbers, at Philadelphia, with headquarters at the Bellevue-Stratford Hotel. The officers of the association are: President, Frank J. Fee, 415 West 14th Street, New York City; vice-president, Chris Irving, 1525 Larimer Street, Denver, Colo.; secretary, Charles F. Murphy, 15 Old Broadway, New York City; treasurer, Wm. McCoach, 1607 Sansom Street, Philadelphia.

June 23, 24 and 25, 1913.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gomers, 260 West Broadway, New York City.

Auburn, Ind.—H. H. Strole has been awarded the contract for heating the new city hall, at a figure of \$1,888.

Grand Island, Nebr.—Kelly & Co. have been awarded the plumbing and heating contract in the court house at Greeley, Nebr.

Sharon, Pa.—The Caldwell & Semple Co., of this city, have recently secured the following contracts: Plumbing in the tuberculosis hospital being erected in Summit County, O., near Akron; steam heating and ventilating apparatus in the Y. M. C. A. building at East Liverpool, O.; heating, ventilating and water system in a school house at West Farmington, O.; heating and plumbing of the store and office building of the Atlas Coal Co., Burgettstown, Pa.; and heating system for the country residence of W. H. Vodrey, at East Liverpool, O.



## GOVERNMENT CONTRACTS TO BE AWARDED.

Supervising Architect Oscar Wenderoth, Treasury Department, Washington, D. C., will receive sealed proposals as follows:

Until 3 p. m., on March 24, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring, and lighting fixtures, of the United States post office at Weatherford, Tex. The building is one story and basement, with a ground area of approximately 4,800 square feet. Fireproof construction; stone and brick facing; tin roof.

Until 3 p. m., on March 25, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Tifton, Ga. The building is to be one story, basement and mezzanine, and have a ground area of approximately 4,400 square feet; fireproof first floor, stone and brick facing and tin and tile roof.

Until 3 p. m., on March 25, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of the United States post office at Concordia, Kans. The building is two stories and basement and has a ground area of approximately 4,750 square feet. First floor only fireproof; stone facing and tin roof.

Until 3 p. m., on April 1, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches,) of the United States post office at Rolla, Mo. The building is two stories and basement, and has a ground area of approximately 3,960 square feet. First floor only fireproof, stone and brick facing, and slate roof.

Until 3 p. m., on April 3, 1913, for the construction complete (including the electrical protection, conduit and wiring, lighting fixtures, plumbing, heating, and ventilating equipment) of vaults, except vault doors, for the new building for the Bureau of Engraving and Printing at Washington, D. C. The work contemplated is the construction of four interior vaults, of reinforced concrete, having an aggregate floor area of about 7,350 square feet, and one exterior vault of reinforced concrete, with a housing of about 4,950 square feet, fireproof construction, stone faced, tile roof.

Until 3 p. m., on April 4, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring, and lighting fixtures,) of the United States post office at Ottawa, Kans. The building is one story and basement, with a ground area of approximately 4,800 square feet. Fireproof construction; stone facing; tin roof.

Until 3 p. m., on April 7, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Casper, Wyo. The building is to be of one story mezzanine and basement, and has a ground area of approximately 4,000 square feet; fireproof first floor; stone, brick, and terracotta facing and tin roof.

Until 3 p. m., on April 8, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduit and wiring, and lighting fixtures) of the United States post office at Lawrenceburg, Ky. The

building is two stories and basement, with a ground area of approximately 4,000 square feet. Fireproof construction, except roof; brick and stone facing; tin roof.

Until 3 p. m., on April 11, 1913, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of the United States post office at Boonville, Mo. The building will be about 46 by 88 feet and one story and basement in height. The entire exterior of the building, including cornices and trimmings, will be of stone. The interior construction up to and including the first-story ceiling will be fireproof. Roof framing will be of wood construction covered with composition roofing. Interior finish will be hard wood, plaster, marble, etc. Building to be heated by low-pressure steam heating.

Until 3 p. m., on April 12, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Douglas, Wyo. The building is two stories and basement and has a ground area of approximately 4,400 square feet. Fireproof construction, stone facing, and tin roof.

Until 3 p. m., on April 21, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Harrisburg, Ill. The building is to be of one story and basement, and to have a ground area of approximately 4,000 square feet; fireproof construction, stone facing, and tin roof.

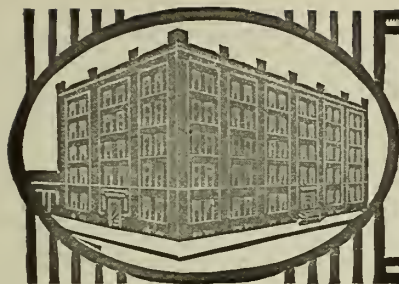
Until 3 p. m., on April 22, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Le Mars, Ia. The building is to be of one story and basement and to have a ground area of approximately 4,000 square feet; fireproof first floor; stone and brick facing and tin roof.

Until 3 p. m., on April 26, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Oxford, N. C. The building is to be one story high with a mezzanine at each end and a partially excavated basement, and have a ground area of approximately 3,800 square feet; fireproof first floor; stone and brick facing and tin roof.

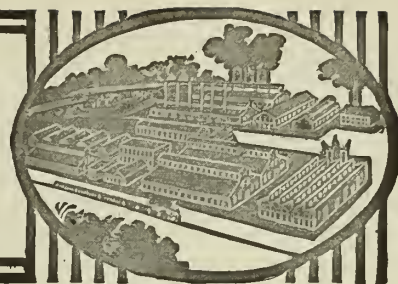
Until 3 p. m., on April 28, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States appraisers' stores at Milwaukee, Wis. The building is two stories and basement and has a ground area of approximately 7,200 square feet; pile foundations, fireproof construction; brick facing; composition roof.

Until 3 p. m., on April 29, 1913, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches) of the United States post office at Covington, Va. The building is to be of one story and basement with a mezzanine at each end and will have a ground area of approximately 3,800 square feet; fireproof first floor; stone and brick facing and tin roof.

All proposals should be in accordance with drawings and specifications, copies of which may be obtained from custodian of the above sites, or from the Supervising Architect at Washington, D. C.



## News of Interest Among the Wholesalers and Manufacturers



### THE NATIONAL ASSOCIATION OF BRASS MANUFACTURERS TO MEET IN ST. LOUIS, MO.

The National Association of Brass Manufacturers will hold its annual spring meeting at the Planters Hotel in St. Louis, Mo., on Tuesday and Wednesday, March 18 and 19, according to the official announcement just issued by William M. Webster, commissioner, 1807-1814 City Hall Building, Chicago. A large attendance is expected at this meeting, as many matters of great importance will be considered.

### NOISELESS FLOAT VALVE MFG. CO. MOVES TO ROCK ISLAND, ILL.

The Noiseless Float Valve Mfg. Co. has moved its general offices and factory from Cleveland, O., to 218 Seventeenth Street, Rock Island, Ill.

### THE OLIVER & HOWLAND CO., IN LARGER QUARTERS.

The Oliver & Howland Co., Springfield, Mass., for 25 years located at 714 Worthington and 33-35 Taylor street, in that city moved on March 1 to greatly enlarged quarters at 240 Main and 11-17 Railroad street.

### WILL MANUFACTURE HEATING SPECIALTIES.

The Lawrence Heat Distributor Co., of Indianapolis, Ind., has been incorporated with a capital of \$5,000, to manufacture heating specialties. The directors are: J. L. Blanchard, Wm. E. Springer and M. A. Blanchard.

### WILL DEAL IN PLUMBERS' AND STEAMFITTERS' SPECIALTIES.

The Plumbing Sales Co., of Chicago, has been incorporated with a capital of \$15,000 to deal in plumbers' and steamfitters' specialties. The incorporators are: William A. McGuire, Sydney J. Frank and John Fitzsimmons.

### WILL MANUFACTURE HEATING AND PLUMBING SPECIALTIES.

The Chapman Steam Specialty Co., of Canton, O., has been incorporated with a capital of \$10,000 to manufacture heating and plumbing specialties. The incorporators are: S. DeWitt Chapman, Grace B. Chapman, E. H. Lamiell, Maud S. Lamiell and E. E. Chevaux.

### WILL MANUFACTURE PLUMBING SPECIALTIES.

Baker Specialty & Supply Co. is the title of a concern recently incorporated at Logansport, Ind., with a capital of \$25,000, to manufacture plumbing specialties. The di-

rectors are: Clarence and Arthur N. Baker and John Flanegin.

### CHANGE IN STANDARD SANITARY MFG. CO. MANAGEMENT.

On March first a change was made in the management of the Standard Sanitary Mfg. Co., whereby E. L. Dawes will retire from active service as general manager of factories, to devote his entire time and attention to the Standard Sanitary Mfg. Co., Ltd., of Canada, as its president.

M. G. McKinney succeeds Mr. Dawes, with H. M. Reed as assistant manager. Theo. A. Mueller is now manager and Lafe Stoesser superintendent of the Ahrens & Ott works.

The men moved into the new positions have been with the company for many years, and the change is a promotion for all of them.

### WILL MANUFACTURE WATER HEATERS.

The Crawford Water Heater Co. has been incorporated in San Francisco, Cal., with a capital of \$75,000, to manufacture water heaters. The incorporators are: R. W. Moody, J. J. Crawford and others.

### WILL OPEN LARGE AND ATTRACTIVE SHOW ROOM.

The W. H. Anderson Tool & Supply Co., of 14-16 Macomb Street, Detroit, Mich, is opening a new show room at 26-28 Macomb Street in that city. The new show room is 60x110 feet and will be open to company's customers about March 10.

### BRAMAN, DOW & CO., OF BOSTON, VISITED BY FIRE.

The plumbing supply concern of Braman, Dow & Co., of Boston, Mass., was visited by a serious fire on Thursday evening, February 20th, which practically destroyed its five story building with contents. The company's loss will be very large, but it was covered by insurance.

### WILL MANUFACTURE HEATING SPECIALTIES.

The Kieley Steam Specialty Co., of Chicago, has been incorporated with a capital of \$2,500 to manufacture heating specialties. The incorporators are: Ellis P. Whipp, Martin C. Koebel and Goodman Wallem.

The Columbus Hot Water Heating Supply Co., of Columbus, O., has been incorporated with a capital of \$10,000 to manufacture heating specialties. The incorporators are: J. F. Baird, Frank A. Kropp, William A. Distelhorst, F. W. Distelhorst and J. W. Rice.



### NOW IN NEW AND LARGER QUARTERS.

The Richardson & Boynton Co., of Chicago, last week moved into new and larger quarters at 171 West Lake Street near Fifth Avenue, where a full line of the company's products will be on display. This new Chicago home of the company opened its doors to its patrons March 1st.

### INCREASED ITS CAPITAL STOCK.

The Ohio Plumbers' Supply Co., Toledo, O., has increased its capital stock from \$25,000 to \$100,000. The company contemplates the erection of a new building on Tenth, between Adams Street and Madison Avenue. The building will be 90 x 100 feet, of brick and concrete construction with stone trimmings.

### WILL MANUFACTURE STEAM SPECIALTIES

Kiely & Mueller Steam Specialty Co. of Chicago, has been incorporated with a capital of \$2,500 to manufacture steam specialties. The incorporators are Robert E. Lee, Melvin C. McIntosh and Edward A. Machling.

The Boylston Steam Specialty Co., of Chicago, has been incorporated with a capital of \$50,000 to manufacture steam specialties. The incorporators are John Boylston, H. J. Richter and John Boylston, jr., all of Chicago.

### WILL REPRESENT MANY MANUFACTURERS.

The Sanitary Equipment Co. has been organized at Trenton, N. J., with offices in the Broad Street Bank building, under the management of James D. Brady, until recently associated with the Hudson Boiler Co., of New York. This concern will represent manufacturers in the east, selling the plumbing jobbing trade. Among its accounts are the Resolute Pottery Co., Trenton, N. J.; Eclipse Seat Co., New York City; Athol Pump Co., Athol, Mass.; Hillen Brass Co.; Louisville, Ky.; Acme Mfg. Co., Bangor, Me.

### NOPACK BRASS MFG. CO. INCORPORATED.

The Nopack Brass Manufacturing Co. has been incorporated at DuBois, Pa., to manufacture a complete line of Nopack Bibbs, Basin Cocks and Mixing Valves. The officers are: president, J. G. Miller; vice-president, J. H. Lingle; secretary and treasurer, H. B. Lingle; general superintendent, A. J. Vaughn. The authorized capital is \$200,000, and in addition to the main office at DuBois, a sales office will be maintained at 527 Perry Building, Philadelphia.

The Beler Water Heater Co., of Pittsburgh, has appointed P. T. Travers as exclusive sales agent for the state of Indiana, with headquarters in Indianapolis. Mr. Travers represented the Ruud Manufacturing Co. in Indiana for four years and, during the last three years, has been connected with the Indianapolis Gas Co. He has had a great deal of practical experience in the sale of automatic water heaters. The Beler Company has also appointed George W. Witmer sales agent for Iowa, with office and display rooms at 421 West Locust Street, Des Moines.



William R. Sweatt, president and treasurer of the Electric Heat Regulator Co., of Minneapolis, Minn., has just started on a trip around the world.

O. F. Kropf, secretary and treasurer of the Findeisen & Kropf Mfg. Co., of Chicago, left last week for Bermuda, where he intends to spend the next two months.

Charles Miller, of the Miller-Hubbard Mfg. Co., of Sturgis, Mich., is at present spending a vacation in the South.

C. E. Thompson, of the Thompson Mfg. Co., of Holland, Mich., C. R. Heap, of Wm. Heap & Sons, Grand Haven, Mich., and D. T. Williams, of the D. T. Williams Valve Co., of Cincinnati, O., left last week for the Pacific Coast.

A. H. Warren, sales manager of the Sherman Brass Co., Battle Creek, Mich., recently returned from an eastern trip, where he had the opportunity of greeting old friends in the New England States.

Edward Blywise, sales manager of the Monarch Brass Co., Cleveland, O., recently called on friends in the New York trade.

E. J. Forbes, secretary of the Forbes Brass Co., Inc., Rochester, N. Y., has recently returned from a trip through the Eastern States.

V. M. Mahler, who was connected with the United Brass Mfg. Co., of Cleveland, O., for nine years, has recently accepted a position with the Central Brass Mfg. Co., of Cleveland, as assistant sales manager. Mr. Mahler formerly filled the office of sales manager with the United Brass Mfg. Co.

### NEW LITERATURE ON HUMPHREY HEATERS.

The Humphrey Co., of Kalamazoo, Michigan, has recently issued some very attractive circular matter on their Bath Geysers. One of these circulars is entitled "The Cheapest Hot Water in the World" and is intended to assist the plumbers in securing the business on these devices. The Humphrey Co. have recently announced reduced prices on their Automatic and Regular Bath Geysers on account of the reduction in the metal market, so the prices will average about the same as last year. They express the hope that the metal market will remain as low as at the present time so that such prices can be kept in effect.

### 1913 PIPE PRICE EXTENDER OUT.

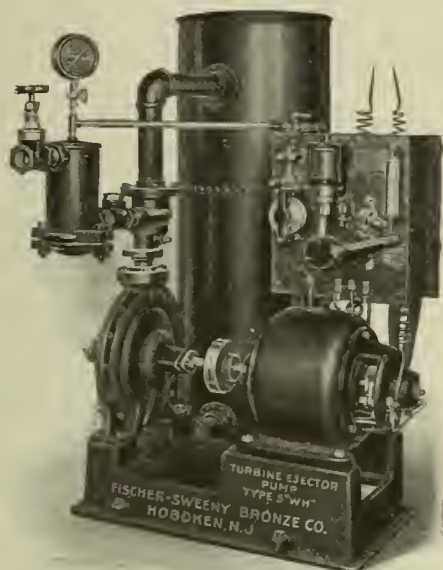
The 1913 edition of the Pipe Price Extender this year contains 36 pages and is more complete than ever. This little book enables the user to figure the price of any length and size of pipe in an instant. For those who are computing the values of black and galvanized pipe it is invaluable. The new edition contains the lists for 1913 and a copy will be mailed postpaid for 50c. The publisher is Edgar J. Wuller, Belleville, Ill., and orders can be sent to "Domestic Engineering" if desired.

### TURBINE EJECTOR PUMP FOR VACUUM HEATING.

Many interesting features are combined in the turbine ejector pump shown herewith. This pump is manufactured by the Fischer-Sweeny Bronze Co., of Hoboken, N. J., and it is designed for vacuum heating work, the aim having been to secure high efficiency with simplicity of design and operation.

The apparatus consists of a motor-driven centrifugal pump, a vacuum head, a water storage tank and an automatic controlling device, all of which are mounted on a single bedplate and form a self-contained unit.

The motor-driven centrifugal pump forces a high velocity stream of water through the concentric turbine ejector (or vacuum head), exhausting a large volume of air and producing a high and steady vacuum. The discharge of water from the vacuum head is delivered into the storage tank together with the air and condensation from the heating system. Any sand, pipe scale or other foreign matter from the heating system cannot enter the moving parts, but are delivered directly into the tank, where they settle to the bottom. The tank is ar-



Fischer-Sweeny Turbine Ejector Pump.

anged for the easy removal of sediment and for refilling with clean water.

The automatic switch and vacuum regulator start and stop the pump at any pre-determined vacuum within the range of 5 and 29 inches.

On return line systems where a high vacuum is not required, the pump is run continuously to take care of condensation as fast as it is returned, eliminating necessity for an automatic switch and vacuum regulator. In its place a starting switch mounted upon a marble board is provided.

On return line low pressure systems, where the initial boiler pressure does not exceed 10 pounds, the condensation may be returned direct to the boiler. On high pressure systems it is discharged into the sump well or feed water heater.

In addition to the advantage of high efficiency, other features emphasized by the manufacturers are the minimum number of moving parts, insuring freedom, trouble and expense due to wear; absence of belts, pinions or any gearing between motor and pump; absence of valves,

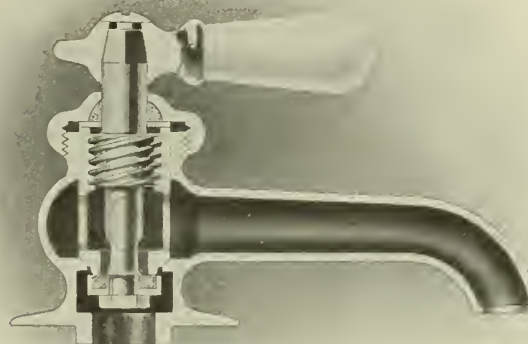
springs or intricate lubricating devices; stationary jets of composition bronze in vacuum head (guaranteed for five years) and easily renewable; oiling required at infrequent intervals, instantaneous operation upon closing of motor circuit and operation without expert attention. The apparatus is furnished complete, ready for connection to power lines, without the introduction of any intermediate switches. Interested parties can obtain complete information on application to the manufacturers, mentioning "Domestic Engineering."

### A NEW LINE BY THE CHICAGO FAUCET CO.

The Chicago Faucet Co. are just putting on the market a new line of quick acting compression faucets which they call "Qua Turn" and which they claim is the most remarkable departure in faucet construction since the advent of the Fuller.

Instead of a soft rubber ball, as in the regular Fuller construction, this new faucet has a hard composition disk entirely encased in a brass retainer, which is claimed will prevent the usual wear and softening incident to the use of a Fuller ball, especially under hot water service.

The new faucet has the rapid action of the Fuller, open-



"Qua Turn" Faucet of Chicago Faucet Co.

ing to a full flow at one-eighth turn of the handle and coming to a stop at one-fourth turn. High pressure only makes the tendency of the faucet to remain closed that much greater.

The Chicago Faucet Co. claim an advantage in the new line in the fact that all working parts of basin cocks, bibbs, bath cocks, stops, valves, and, in fact, all the parts of the line will be interchangeable, so that it is unnecessary to keep a large variety of repair parts, for one line of parts will fit all types of the line.

Another point claimed is that since no working part comes in contact with the body there is no wear on the body, so that it will last for a long time and the working parts can be replaced as needed.

The line is to be made in red brass and with the quality and appearance that distinguishes the Chicago Faucet Co's. self-closing faucet and sanitary drinking fountains. They say that a full line of bath cocks, shampoo cocks, ball cocks, stops and valves will be added shortly.

Full information regarding the line will be furnished by the Chicago Faucet Co., Chicago, Ill., upon mention of "Domestic Engineering."



## IMITATIONS OF MURDOCK HYDRANTS FOISTED UPON THE PLUMBERS.

The Murdock Mfg. & Supply Co., Cincinnati, Ohio, states that many plumbers imagine dealers are sending them the genuine Murdock hydrants, when instead they are getting the imitations. A hydrant with only the letter "M" on it, or one marked in any other way than with the full name Murdock cast in the stock under the nozzle, is not a genuine Murdock hydrant. Genuine Murdock hydrants are made only by the Murdock Mfg. & Supply Co. at Cincinnati, Ohio.



Mr. Murdock tells us that one of the greatest difficulties with which they have to contend is the plumber's belief that the hydrant which has failed to give satisfaction was made by them, simply because it bears some deceiving mark and came from the dealer when Murdock hydrants were ordered. It is common to hear a plumber say, "I know I am getting Murdock hydrants, because they have the letter 'M' on them."

In cities, towns, mines and factories where it is necessary to conserve the water supply, self-closing hydrants are being used to a far greater extent than formerly. The genuine Murdock self-closing hydrant, we are told, is built strongly and every part is thoroughly tested, so that they invariably give satisfaction. Plumbers who desire good, honestly made hydrants should communicate with the Murdock Mfg. & Supply Co., Cincinnati, Ohio. Mention "Domestic Engineering" in writing.

## THE EMERY SELF RAISING CLOSET SEAT.

The Emery Self Raising Seat is built on the principle which insures positive action, durability, absolute cleanliness and sanitation, according to the manufacturer's claims.

The work is made in six pieces, the joints being locked by a dowel passing diagonally through same, positively preventing any lateral action. The hinges are made of heavy cast brass, nickel plated.

The power for raising the seat is obtained by confining four electro-galvanized steel springs of graduated lengths and diameters, properly lubricated, in each of the hollow posts.

The graduated spring arrangement equalizes the power, lessens the strain, gives an easy action to the seat when rising, and insures the durability of the springs, which, as well as the woodwork and all parts of the hinges, are



Mechanism of Emery Self-Raising Seat.

tively preventing any lateral action. The hinges are made of heavy cast brass, nickel plated.

The power for raising the seat is obtained by confining four electro-galvanized steel springs of graduated lengths and diameters, properly lubricated, in each of the hollow posts.

The graduated spring arrangement equalizes the power, lessens the strain, gives an easy action to the seat when rising, and insures the durability of the springs, which, as well as the woodwork and all parts of the hinges, are

guaranteed for five years. These hinges are made with an automatic stop, which halts the seat in an upright position, preventing damage to anything back of same. This seat permits close roughing in and eliminates all possibility of damage to walls or closet bowl by the unsightly ball or weights often used on self raising seats. In limited spaces a separate urinal fixture may often be dispensed with if these seats are used in connection with the closet bowls, for reasons which are obvious. The Emery self raising seat is, according to a large and constantly increasing number of architects and owners, the most durable, economical and sanitary closet seat for use in any and all public buildings, office and loft buildings, hospitals, theaters, etc.

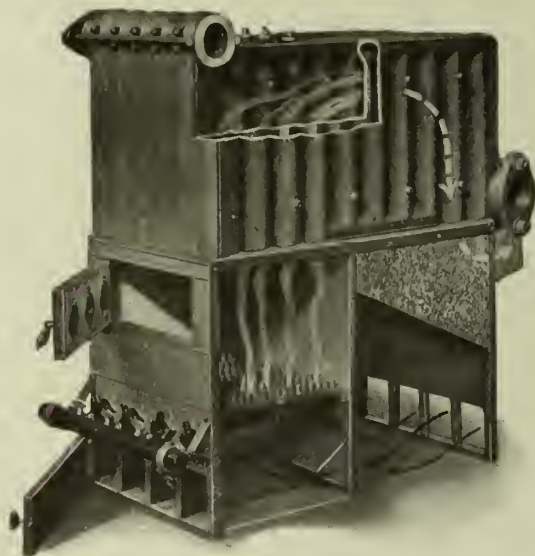
It can be fitted to and used on any closet bowl made.

Further particulars regarding this seat can be obtained from the manufacturer, William S. Emery, 74-78 Cliff Street, New York City, upon request, mentioning "Domestic Engineering."

## NEW GAS HEATER ON THE MARKET.

The Scientific Heater Co., East Twelfth Street and Power Avenue, Cleveland, O., have recently put out a gas water heater which they claim is in many ways a radical departure from anything now on the market, and that it has many features of interest to the trade.

The space in the rear of the combustion chamber forms an oven in which the air required for combustion is pre-



The New Scientific Gas Water Heater.

heated before passing to the burner compartments. This is the same plan as followed in modern steel melting furnaces and is designed to increase the temperature of the flame and the efficiency of combustion.

Each burner is in a separate compartment, the air supply to each being automatically regulated to the exact amount required by means of the pivoted gate which operates in synchronism with the gas valves. The burners are a foot below the water sections, so that the flame never comes in contact with them. The space between the burners and the water sections forms a combustion chamber in which combustion of the gases is entirely completed before transmitting any heat to the water.

The circulation of the burnt gases and of the water is exactly the reverse of practically all other boilers. The return water enters at the rear and circulates towards

the front. Just before it leaves the boiler it is exposed to the hot blast from the combustion chamber and the burnt gases on the other hand are exposed to the return water just before leaving the boiler.

The Scientific Heater Co. also build a gas vapor boiler along similar lines. They maintain a department devoted to warm air gas furnaces, gas heaters, auxiliary furnaces, etc.

Catalogues and other literature fully describing the new gas boiler and other lines manufactured by this company will be sent upon request by the manufacturer, whose address is given above. Mention "Domestic Engineering" when writing.

### THE "RUBY" SOLDERING FLUID.

A soldering and tinning flux for all metals, called the "Ruby Fluid," is manufactured by the Ruby Chemical Co., Columbus, O. This soldering fluid is said to be a non-explosive, non-poisonous and non-corrosive compound that will not destroy, damage or tarnish either the metal or the coating. The manufacturers claim that the "Ruby Fluid" appeals especially to plumbers and all mechanics because it has no fumes—either poisonous or otherwise—is quick acting, saves solder, and will not "pit" or "eat" the coppers. They also state that the demand for their product has become so great that they



The "Ruby" Soldering Fluid.

have recently opened a new plant at Windsor, Canada, to increase their facilities for handling the business. Full information can be obtained regarding the "Ruby Fluid" upon request to the Ruby Chemical Co., Columbus, O., mentioning "Domestic Engineering."

### SEWAGE DISPOSAL INTERESTS PLUMBERS.

The rapid increase in the sale of water supply systems and equipment in country and suburban homes has brought with it an insistent and increasing demand for satisfactory sewage disposal plants.

The day of the home-made outfit, with its high cost and labor, would seem to be well nigh past, when it is possible to secure this equipment ready to install from a reliable concern.

The Andrews Heating Co., of Minneapolis, Minn., has developed a septic tank outfit that is adapted to the conditions in country home installation where something dependable and reliable is required. There is nothing

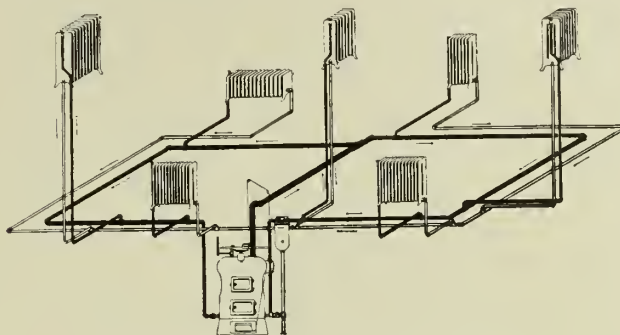
complicated about the equipment and the price is very interesting.

The Andrews Heating Co., of Minneapolis, Minn., will be glad to send full information regarding their septic tank system, with prices, to plumbers who will write them, mentioning "Domestic Engineering."

### SIMPLICITY OF TRANE VAPOR HEATING SYSTEM.

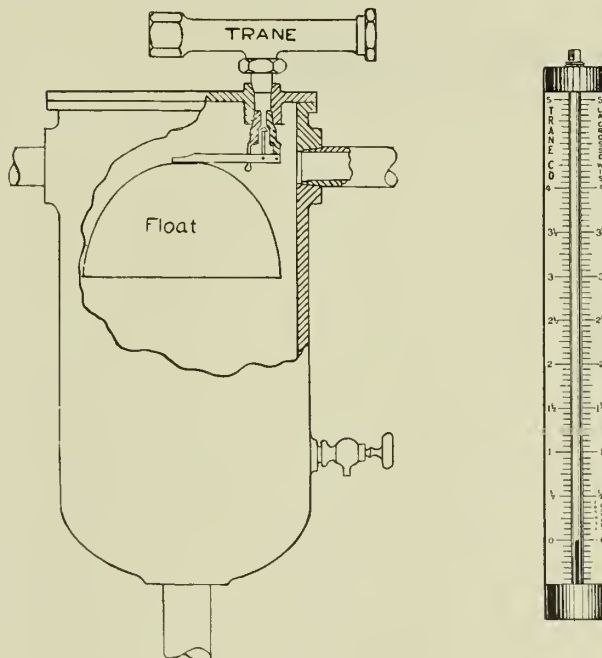
Through the courtesy of the Trane Co., La Crosse, Wis., we are enabled to show herewith an isometric drawing of a vapor heating installation.

In this system vapor goes direct from the boiler to the



Plan of a Vapor Heating Installation.

top of the radiators, and from there back to the receiver. One illustration shows the internal mechanism of the receiver. The return pipe enters the side of the receiver and the bottom is connected direct to the boiler, so that condensation returns by gravity. The top of the receiver



The Trane Receiver and Mercury Gauge.

is open to the atmosphere through the float valve and air exhaust valve, which prevents waste of any vapor. The float valve will close when the pressure in the boiler is sufficient to allow the accumulation of water in the receiver. When the valve is closed the differential pressure will decrease so that water can again return to the boiler.



Alongside of the receiver is shown a cut of the Trane mercury gauge. In a vapor system it is necessary to have a gauge that will show pressure in ounces, as the ordinary steam gauge is not sufficiently delicate to do this.

The Trane Co. is getting out a new booklet on the vapor heating system which is very attractive and will be of decided interest to plumbers and heating men. A copy will be sent by them if mention is made of "Domestic Engineering."

#### FANNING'S PATENT DISPLAY STAND.

A practical means of displaying plumbing fixtures to good advantage has long been a problem to the jobber of plumbing supplies, as well as to the master plumber who takes pride in showing an attractive display room. A display stand substantially built of solid oak (except white enamel) strongly braced and constructed to stand the wear and tear incident to office service, mounted on heavy casters, which permit it to be moved about easily.



Fanning's Patent Display Stand.

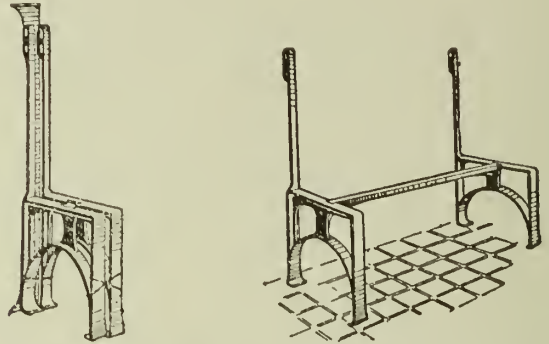
quickly and noiselessly, is manufactured by Benjamin Fanning, Livingston building, Rochester, N. Y. These stands have a paneled floor arranged to take a closet roughing in at any of the various dimensions. The wall is fitted with a loose panel and base, and this as well as the floor can be taken out and replaced by marble, tile or any other material to represent the various kinds used in bath or toilet rooms. Special bolts and thumb nuts are furnished to fasten closet bowl, tank and lavatory in place, also special cast flanges to fasten all pipes in their proper places, making fixtures appear as they do when permanently set up. This stand is also finished in white celluloid compound covering to harmonize with white closet tank and lavatory, and is said to be a handsome piece of office or showroom equipment. Further particulars can be obtained by writing the manufacturer at the above address, mentioning "Domestic Engineering."

#### TIMELY ADVERTISING ON TORCHES.

Zero weather always brings with it a demand for plumbers' torches as well as furnaces, and Otto Bernz, of 21 Ashland Street, Newark, N. J., who manufactures these, has reminded his trade by an effective mailing card of the fact that he wants this business and has the goods.

#### THE BAYLEY LAUNDRY TRAY STAND.

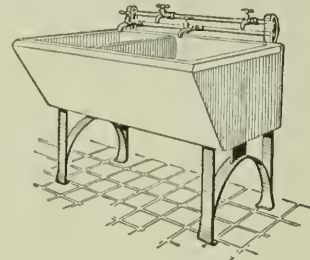
The J. L. Bayley Co., 3037 Nicollett Avenue, Minneapolis, Minn., a short time ago put on the market a laundry tray stand which is meeting with marked success. It is very simple, as will be seen by the illustration, and is intended to take care of any type of laundry tray requiring a stand.



The Bayley Laundry Tray Stand Folded and Placed In Position.

The very fact that it requires practically no labor to install makes it especially valuable, it being shipped knocked-down, and the manufacturers claim that it can be set up in half a minute and will hold the tray and water pipe solid.

There being no bolts or nuts to work loose and no woodenwork required, it would seem to be the ideal stand



Laundry Tray Placed on the Bayley Stand.

for the plumber who wants to give his customers something up-to-date and at little expense to himself.

Information regarding the stand will be cheerfully furnished by the J. L. Bayley Co. upon mention of the "Domestic Engineering."



#### IRON MARKET REMAINS STEADY.

No real change has been made in price, and while some fairly large sales of pig iron have been made in the Buffalo district, these are by no means of sufficient magnitude to induce an early buying movement. Sales in the South continue to be made at around \$13, but these are resale lots and only for special delivery. The general run of No. 2 Southern iron is held at \$13.50, and at that figure there have been several sales. As in last week, the feature this week has been the continued heavy buying by railroad interests not only of cars and locomotives, but of rails, track fastenings and all kinds of materials. The railroads have never made such preparations for a

summer's work as they have this year, and in spite of the tremendous buying of cars which went on all last year, the number of idle cars on the tracks of American railways has again decreased. It is generally believed that some time this month there will be a fairly good buying movement in iron. Quotations are unchanged and repeated from last week as follows:

No. 2 X Northern foundry, New York.....\$17.75@18.25  
 No. 2 plain Northern foundry, New York.... 17.50@17.75  
 No. 2 Northern foundry, Chicago..... 17.25@18.00  
 No. 2 Southern foundry, Cincinnati..... 16.50@17.00  
 No. 2 Southern foundry, Birmingham..... 13.00@13.50

### COPPER.

While there is a fair volume of business around 16 cents and a number of sales of large lots at  $14\frac{3}{4}$ , the buying is by no means general and the entire transactions in copper the last month were disappointing. European consumers have not entered the market, but late advices from London indicate that the trouble in the Balkans will soon be over, and if that is true a renewed buying movement can be expected in the near future.

### A SHARP DECLINE IN TIN.

Influenced by the weakness in the London market the price of tin in the United States declined sharply, and sales were made as low as 47.50 cents. Stocks in the United States are not large, but they are sufficient for present needs, and the decline now recorded is the most severe one that has startled the tin market in several years. It is not felt that this decline will go much further, and the trade would not be surprised should prices suddenly advance to around 50 cents.

### LEAD.

The market is steady and unchanged, a sharp contrast to other metals. Lead is selling at 4.30 to 4.35 in New York and 4.20 cents in St. Louis.

### SPELTER.

The demand is small, and prices are more or less nominal at 6.25 to 6.30 cents New York, and 6.15 cents St. Louis.

### UTAH CONVENTION A SUCCESSFUL ONE.

The meetings of the Utah Master Plumbers' Association convention, held at Salt Lake City on February 6, were marked by unusual interest and appreciation of what was to be accomplished. The fact that thirty-two members out of a membership of fifty-nine were present speaks well for the interest.

President C. J. Higson announced the following committees: Credentials—Charles Amott, Salt Lake City; John A. Forsythe, Price, and John Smeeding, Ogden. Auditing—J. R. Reeve and P. P. Erskine, Salt Lake City, and G. W. Sargent, Ogden. Resolutions—F. G. Carthey, Salt Lake City; H. G. Blumenthal, Provo; A. J. Atkin, Ogden; Will Rees, Salt Lake City; A. H. Palmer, Logan, and Charles Halverson, Ogden. Sanitary—P. G. James, Salt Lake City; A. H. Palmer, Logan; J. W. Dudley, Salt Lake City; G. W. Sargent, Ogden, and H. B. Cromar, Salt Lake City.

In his annual report President Higson dwelt on the satisfactory increase in membership and interest among

the members, showing that a feeling for the upbuilding of the craft was prevalent throughout the state. He also spoke of the need of legislation that would put the practice of the trade on a more definite plane in the different cities.

A universal code and a state board of plumbing examiners were also advocated. The consolidation of the Utah and Idaho associations was also discussed.

The resolution committee, at the afternoon session, in addition to the president's suggestions, which were approved, offered a number of others that were adopted.

Chairman H. B. Cromar of the sanitary committee spread graphically before the members on a blackboard information from various parts of the state suggesting how improvements in sanitary methods throughout the state could be made and the crying need for such effort.

### Officers Elected.

President C. J. Higson of Salt Lake City was re-elected. Other officers were vice-president, A. J. Atkin, Ogden; treasurer, Will Rees, Salt Lake City, re-elected; sergeant-at-arms, John A. Forsythe, re-elected; secretary, F. W. Jones, Salt Lake City, re-appointed.

President Higson was unanimously elected as delegate to the coming national convention at Philadelphia.

In the evening a banquet was tendered the members and guests at the Arcadia, which was enjoyed by all and proved a fitting climax to a most successful meeting.

### PITTSBURGH MASTER STEAM AND HOT WATER FITTERS INCORPORATE.

An application has just been filed in the Common Pleas Court of Allegheny County for a charter for the "Master Steam and Hot Water Fitters' Association of Allegheny County, Pennsylvania." Those applying for the charter for this new corporation, which is said to be the first to be formed in the state, are such well known heating contractors as C. Burchfield Kennedy, Joseph E. McGinness, James J. O'Sullivan, Frank B. Darragh and William F. Hughes. In applying for the charter, the following statement of fact was made to the court:

"To establish and maintain business and social relations among its members by meeting and discussing the science of construction and erection in buildings of all kinds of steam heating, hot water heating, ventilation, refrigeration, vacuum cleaning, electric and power plants and apparatus, and by the adoption of rules and regulations in the practice of said science, whereby there may be secured the best results in the construction and erection of such plants and apparatus; the maintenance of friendly and equitable relations with their employees, thereby stimulating them to the highest degree of efficiency and skill in the execution of the work entrusted to them; also to secure the co-operation of manufacturers and jobbing houses furnishing materials of the kind required in the construction of such apparatus and plants so that the materials so furnished may be of the highest quality; all to the end that the science and business of the construction and erection of plants and apparatus of the kind mentioned may be placed on the highest plane of usefulness."

### A Constitutional.

A little 4-year-old girl was walking with her mother, when a caterpillar, the first she had ever seen, crawled in front of them. "Muvver, muvver!" she cried excitedly. "Look! Your muff's little girl is out taking a walk." —Everybody's Magazine.



## INDIANA CONVENTION AT INDIANAPOLIS BEGINS MARCH 10.

The twentieth annual convention of the Indiana Association will be held at Indianapolis, Mar. 10, 11 and 12, at the Dennison Hotel. This promises to be one of the largest attended conventions Indiana has ever experienced. No stones are being left unturned to make the convention a roaring success, and plans are being completed to make it an extremely interesting one from a social and educational standpoint.

The committee in charge has rented an entire section of the Dennison Hotel. On either side of the long corridor leading to the convention hall will be the exhibits of the different manufacturing concerns, which spaces and rooms will be rented to them by the Association and run under the jurisdiction of the Association officers at all times.

At the end of the corridor is the convention hall with ample room to seat two hundred and fifty delegates. Luncheon will be served to delegates and their wives at noon in the convention hall, and it will not be necessary to leave the meeting at any time.

The banquet on Tuesday night will also be held in the large dining room adjoining the convention hall.

The exhibits will be a feature of the convention, and many new and useful appliances will be on display in these quarters. The exhibitors are striving to make this an educational affair, and it will be open at the hours indicated in the program.

The officers of the association are urging all delegates to bring their wives with them to the convention, as it will make an ideal outing for the women, as well as add dignity to the convention, and plenty of entertainment has been provided for them, as can be seen in the program.

One of the features of the convention will be an address by Mr. Ripley of the American Radiator Co., of Chicago, on "Overhead Expense." Mr. Ripley is thoroughly familiar with the subject and being so closely affiliated with the trade, is in a position to give out some useful and valuable information.

The address on Wednesday afternoon will be equally interesting, as the gentleman whose service the committee is making an effort to secure, is well posted on his subject, namely, "Vacuum Cleaning Plants and Their Relation to the Master Plumber and Fitter." This is a new field comparatively, but unless the trade makes more stringent steps to safeguard their interest, this branch of the business will slip from us into other hands.

The meeting of district chairmen and local presidents, and individual members, where no local association exists, to be held on Monday afternoon, will no doubt be an interesting and well attended meeting.

The rules as laid out by the state officers barring the treating of delegates by the exhibitors, will no doubt meet with favor by the majority of delegates and manufacturers, and will add efficiency and dignity to the convention.

The program will, in all probability, be arranged as follows:

### Monday.

10 a. m.—Directors' executive session continued throughout the day.

1:30 p. m.—Reception of delegates by the various committees at the exhibit rooms.

4 p. m.—Meeting of local presidents, district chairmen, and individuals where no locals exist.

6 to 11 p. m.—Exhibits open in exhibit hall, second floor, Dennison Hotel.

### Tuesday.

8 to 10 a. m.—Exhibits open in exhibit hall.

10 a. m.—Opening of convention. Address of welcome by Geo. A. Geis, president, Indianapolis Master Plumbers' Association, and his honor, Mayor Lew Schank.

Response by Wm. J. Woolley, state president.

Reading of minutes. Appointing of committees by the chair.

12 noon.—Luncheon will be served to delegates and wives in convention hall.

12 to 1 p. m.—Exhibit hall open.

1 p. m.—Convention called to order. Address by Mr. Ripley of the American Radiator Co., on "Overhead Expense." Reading of officers' reports. Report of treasurer. Report of state committees. Introduction of resolutions. Executive session.

### Tuesday Evening.

8 p. m.—Banquet to delegates and wives.

### Wednesday.

8 to 9:30 a. m.—Exhibits open.

9:30 a. m.—Convention called to order. Address by a National officer. Consideration of resolutions. New plumbing laws. Executive Session.

12 noon.—Luncheon to delegates and wives in convention hall.

12 to 1 p. m.—Exhibits open.

1 p. m.—Convention called to order. Address on "Vacuum Cleaners." Benefits and welfares. One cent letter postage. Discussions for good of the order. Election of officers.

### Thursday.

Visit to the Shirley Radiator Company's plant. Time and place of starting will be announced before the convention.

### Program for the Ladies.

#### Tuesday.

10 to 12 a. m.—Opening of convention. Register with registration clerk at door of convention hall, where you will receive souvenirs and tickets.

12 o'clock—Luncheon in convention hall.

2:15 p. m.—Theatre party, as guests of the Indianapolis Master Plumbers' wives. (Meet at 2 o'clock in hotel parlor.)

8 p. m.—Banquet in hotel dining room.

#### Wednesday.

10:30 a. m.—Shopping tour (visiting the principal department stores).

2:15 p. m.—Meet in hotel parlor for auto sight-seeing trip around city.

8 p. m.—Theatre party for all delegates.

#### Thursday.

Visit to Shirley Radiator Company's plant.

Pine Bluff, Ark.—J. G. King, who has had his place of business at Ninth and Main Streets, is now located at 1000 Main Street, where he has opened a first class plumbing and heating establishment. Mr. King was one of the first to enter the plumbing field in this town.

Peoria, Ill.—Lucas & Saal have remodeled their plumbing establishment on Court Street and made it a very attractive place. The office and display room has been partitioned into booths, finished in white and arranged for showing the line of plumbing and bath room fixtures carried by the firm.

## WILL PRESENT SANITARY DRINKING FOUNTAIN TO KANSAS CITY, MO.

The women's auxiliary to the Master Plumbers' Association of Kansas City, Mo., will present a sanitary drinking fountain to that city on Sunday afternoon, March 9. This is the first sanitary drinking fountain erected in Kansas City by a woman's organization. Mrs. E. D. Hornbrook was one of the leaders in the movement of this commendable enterprise.

## MASTER PLUMBERS' ENTERTAINMENTS.

The annual reception and ball of the Master Plumbers' Association of Boston, Mass., will be held Tuesday evening, March 25, in Paul Revere Hall, Mechanics' Building.

The Master Plumbers' Association, Borough of Queens, New York City, was entertained by the Rockaway members February 10. Mr. George Gross, of Rockaway, had charge of the arrangements. The guests of the evening were Thomas P. McLaughlin, George H. Creasey and I. J. Brown of the Manhattan branch. After a very lively meeting dinner was served.



Baltimore, Md.—Neser & Quinn Co. has been incorporated for \$10,000 to conduct a general plumbing business. The incorporators are: Carroll E. Neser. John P. Quinn and Thomas F. Hisky.

New Haven, Conn.—The S. Lyman Co. has been incorporated with a capital of \$10,000 to conduct a general plumbing business. The incorporators are: Samuel Lyman, H. Lyman and Julius Lyman.

Momence, Ill.—The Momence Plumbing & Heating Co. has recently been granted a charter to conduct a general plumbing and heating business. The incorporators are: John B. Zahn, Roy B. Zahn and Harry D. Zahn.

New Bedford, Mass.—The F. E. Earle Co. has been incorporated with a capital of \$10,000, to conduct a general heating business. The incorporating directors are: F. E. Earle, president and treasurer; E. P. Osberg and M. R. Hitch.

Canal Dover, O.—The Ricker Plumbing & Heating Co. has been incorporated with a capital of \$10,000 to conduct a general plumbing and heating business. The incorporators are Harrison L. Ricker, Ralph Geib, Clifford B. Sohane, Ruben C. Ricker and John B. Ricker.

Philadelphia, Pa.—Harry F. Murphy has the contract to install heating and ventilating systems in the Carnegie library at Calumet and Midvale Avenues, the work to cost \$4,400.

Rochester, N. Y.—The firm of Towe & Devendorf, 279 East Avenue, has recently been dissolved, Mr. Devendorf having sold his interest to Mr. Towe, who will carry on a similar business at the old address. He will also finish all contracts taken by the old firm and assume all of the obligations. William F. Devendorf is now located temporarily at 350 East Avenue, where he is carrying on a heating, ventilating and power business under his own name.



### Frank P. Gillett.

Frank P. Gillett, founder and secretary of the Crown Die & Tool Co., of Chicago, died at his home in this city on Wednesday, February 26, after a short illness.

### R. O. Rodolf.

R. O. Rodolf, a pioneer wholesaler in the plumbing supply business, died on Feb. 5th in his fiftieth year at the home of his sister, Miss Ida Rodolf, in Wichita, Kansas, from a complication of diseases after a lingering illness. Mr. Rodolf was a resident of Wichita for thirty years, and until compelled to retire by illness, he owned and managed the plumbing supply house in Wichita, now owned by the Crane Co. He was a thirty-second degree Mason, a member of the K. & L. of S. and the A. O. U. W. lodges. Three sisters survive him.

### John R. Cummings.

John R. Cummings, a well known master plumber of New York City and member of the Manhattan branch of New York City Master Plumbers' Association, died Wednesday morning, February 19th, aged fifty years. Mr. Cummings had been in the plumbing business at 2067 Seventh Avenue for nearly a score years. He was born in New York City on Houston street and served his apprenticeship with his father, afterwards entering the firm.

Besides being a member of the Manhattan Branch Association of Master Plumbers, he was a trustee of the Empire City Savings Bank, and a member of the Seventh Regiment Veterans Association.

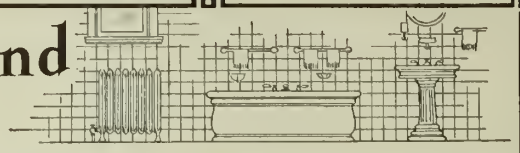
He was also engaged in the building business under the firm name of Corburn & Cummings. Mr. Cummings leaves a wife. The business will be continued under the same name.

### Thomas Oakes.

Thomas Oakes, the oldest active plumbing contractor in the city of Hartford, Conn., is dead. He passed away on the morning of February 24 at his home on Huntington street after a few days' illness with pneumonia. Although 75 years of age, Mr. Oakes had been in excellent health until his last illness. He was born in Manchester, England, November 2, 1837, and when a young man learned the plumbing trade in that city. He was married in England and came to this country with his family during the Civil War. He settled in Hartford, where he resided until the time of his death, and was very successful as a plumbing contractor. Mr. Oakes was a well known figure in Masonic circles and had a great fondness for military and fraternal life. Before leaving his native country he was a sergeant in the Lancashire Royal Engineer Volunteers. He was a member of the Connecticut National Guard at the time of his death, being a former color sergeant in the First Regiment. He was also a former corporal in the Governor's Foot Guards. In Masonic circles he was a member of Wolcott Council, R. and S. M.; Washington Commandery, K. T.; Sphinx Temple, A. A. O. N. M. S.; Hartford Lodge, F. and A. M., and Pythagoras Chapter, R. A. M.



# Among the Plumbing and Heating Contractors



## California

San Francisco.—Just at present country trade, including that of many large towns in the interior, is relatively more active than that in the city, notwithstanding the fact that the continued absence of rain is causing some anxiety and holding back improvements that would otherwise be started in the agricultural districts. The increase in the larger country towns has been very marked within the last year, and in several places where a few years ago four-story buildings were classed as "skyscrapers," eight and even ten-story buildings are now being planned. At the same time there has been a great growth of home building, both in the towns and in the country, owing to the division of large tracts into small farms and the rapid colonization of such districts. In fact, many people who are interested in the up-building of San Francisco as a business center are convinced that the strongest influence in this direction will be the filling up of the surrounding country, which is capable of supporting many times its present population.

New work in the city consists mostly of small contracts, dwelling and small apartment house jobs being especially numerous. A few first-class residence jobs have recently been let, and plumbers anticipate a very good year for residence work of a good character, requiring the most modern improvements in the way of fixtures. This is due largely to the development of the western part of the city, which up to a year ago had scarcely been touched. Much of the land has been divided into residence "parks," with scenic features, and every effort is made to have only handsome and substantial buildings put up. These tracts have found ready sale, and many architects are occupied with homes to be built there next summer.

The brass goods situation is causing no anxiety to the local supply dealers. While most of them have considerable stock on hand, they look for no material decline in manufacturers' prices on finishing goods for several months, at least, and are confident that local re-sale prices will be well maintained. The local price was advanced only recently, and for a year or more previous had been lower than it should be for a satisfactory profit. There is accordingly every prospect that the present level will be held for some time to come.

The Mark-Lally Co. reports a good all-round business for this time of year, though the season of heavy buying has not fairly started, and a great improvement is expected within the next few months. The company has built up a large trade in gas engines through the country, and notes a steady gain in the movement of irrigation supplies, the tendency being to put in extensive pipe systems, which effect a great saving of water and make it possible to irrigate in a more uniform manner than by the old ditch systems.

Morris Stulsaft, of Morris Stulsaft & Company, is spending a few days on an automobile trip up the San Joaquin valley, going as far as Fresno. Bids are now

being taken on the plumbing, etc., for a large business block at Fresno, which is probably one reason for his visit there at this time. He has been getting a substantial volume of business from many valley points of late, however, and is keeping in close touch with the trade of that district.

Boscus Bros. have taken a contract for new plumbing work in the Anglo & London-Paris National Bank building, and also have a job in the new Holbrook building, on Sutter Street, near Sansome.

Two new firms have just been organized for plumbing and heating work at Los Angeles, the Sanitary Plumbing Co., with a capital stock of \$50,000, by A. A., S. M. and B. E. Hokom, A. N. Hartwell and H. E. Jones; and the Pacific Heating & Manufacturing Co., with a capital of \$50,000, by G. A. Lyster, L. Giles, E. C. Kent, J. W. Summerfield and N. C. Folsom.

The Dow Pump & Diesel Engine Co., recently organized here to succeed the Geo. E. Dow Pumping Engine Co. and the Dow-Williams Diesel Engine Co., has just taken a contract for a large installation of pumping equipment in the Insurance Exchange building, the price being \$15,500. The contract for steam pipe connections, etc., between this building and the Merchants' Exchange, which is separated from it by a narrow alley, has been let to J. E. O'Hara at \$2,447. According to plans, the two buildings are to be connected both by a passage under the alley and an enclosed bridge above.

San Francisco.—The contract has been let for rough plumbing in the Fresno estate building at Fresno, Cal., and figures are now being taken on the finishing materials.

Fred Mueller, of the H. Mueller Mfg. Co., is expected to spend the coming week visiting T. F. Leary at the new San Francisco office. Mr. Mueller has been making a trip through Texas and the Southwest. The local branch is making good progress, having two men now on the road and a third traveler will soon be sent out.

F. J. Baker, of the Geo. H. Tay Co., is now in the east. Mr. Parker, of this company, is expected here shortly from Los Angeles to spend a few days.

The John G. Sutton Co., of this city, has taken a contract for a hot water heating system and oil-burning plant for the new city hall at Santa Rosa, Cal., at \$1,770.

City Architect J. J. Donovan, of Oakland, states that contracts have now been let for thirteen of the sixteen new school buildings for which bonds were issued last year, the cost having been kept well below the estimate. Contracts are still to be let on the Durant, Perry and Lockwood schools.

The Exposition Co. will open bids March 11 for plumbing, sewerage and water piping in the Education building, one of the largest exhibit palaces on the grounds.

One of the largest plumbing contracts let here of late was for a large four-story block at Turk and Fillmore Streets, the job going to Condon & Band at \$11,869.

An important item of pipe work at present is in connection with numerous cold storage and ice plants in all parts of the state. A number of large plants are being installed in connection with the fruit industry, in addi-

tion to small independent ice plants in many towns, but there is also a pronounced tendency to put in refrigerating equipment for the better class of markets and large retail establishments.

C. Menotti has secured a franchise at Venice, Cal., to lay and maintain a system of pipes in certain streets of that place to carry refrigerating material.

A contract amounting to about \$20,000 has been let for the construction of a sewage disposal works for the Soldiers' home at Ocean Park, Cal.

R. Barcroft & Son have opened a hardware and plumbing supply establishment at the new town of Chowchilla, near Merced, Cal., in one of the rapidly developing irrigated districts.

George Miller, of Porterville, Cal., has sold out his sheet metal department, and will confine himself to his plumbing business, which has grown to such an extent as to require all his attention.

Graves & Raycroft, general contractors of Long Beach, Cal., are taking figures on plumbing in a large residence to be built at San Pedro.

The Standard Plumbing Co., of Centralia, Wash., has taken the plumbing contract for a new school building at Pe Ell, Wash.

## Indiana

Fort Wayne.—State President Wm. J. Woolley, National Director Carl J. Stein, of Chicago, and State Director Joseph Hayes, of Indianapolis, called on all local plumbers here recently, securing their applications to the State and National Associations. A meeting was called on Tuesday night, Feb. 18th, at the Wayne Hotel, where the forming of a local association was completed.

Messrs. Stein, Hayes and Woolley made short talks to the men present, after which the election of officers took place, which resulted as follows: Jos. P. Martin, president; M. F. Nole, vice-president; Robert Spice, secretary; J. F. Schwegman, treasurer; Albert Tomkinson, sergeant-at-arms.

The following morning the committee called upon a few of the men who were not present at the meeting. In all, seventeen new members were admitted.

Fort Wayne plumbers are enjoying a rush of work at present and every indication points to a big year. Among contracts recently awarded are: Contract for the bubbling drinking fountains in the Custom House and Post Office by Albert Rolf; contract price \$398. The other bidders were R. Spice and J. P. Martin & Co.

Wm. Dell was the successful bidder on the plumbing and heating in the new Lake Shore freight house.

The heating on the new St. Paul's school has been awarded to A. Hattersley & Son and the plumbing to John F. Schwegman.

The steam heating in the Cadillac garage has been awarded to Derheimer Bros. and the plumbing to the firm of Leykauf & Son.

Jos. P. Martin & Co. were the successful bidders on the plumbing and heating in the Maunee dairy.

Albert Tomkinson is moving into his new building, just in the rear of his present quarters. Mr. Tomkinson will lease his present quarters to a mercantile concern after making extensive repairs. The new quarters are modern in every respect, and Mr. Tomkinson expects to equip a modern showroom.

Albert Rolf is at Hot Springs, Ariz., for a month's stay. Mr. Rolf has not been in the best of health for

some time past, and was much in need of this recreation.

Rome City.—F. C. Skinner has opened a plumbing establishment in this city.

Auburn.—The Leigh Plumbing Co., of this city, has been awarded the contract for the plumbing in the new city hall, and the heating was awarded to Mr. Stroll.

Indianapolis.—The local boys are kept quite busy these days making preparations for the coming convention, which promises to be a banner one. All the shops are enjoying a rush of winter business and several shops are completing the larger contracts started last fall.

Richmond.—The plumbing contract in the Viregge residence was awarded to the firm of Wm. Waking & Co. Mr. Waking is moving into his new quarters, where he will be in better shape to handle his increasing business.

Charles Johanning is wearing a "smile that won't come off," for he is enjoying an exceptional busy month. He has just closed the contract for the plumbing, heating, gas fitting and sewerage in the residence of W. Z. Carr.

La Porte.—Bachman Bros. have been awarded the plumbing in the flat building of Don Henry, also the plumbing in the residence of Mr. Simon.

Paul J. Dolan was recently awarded the heating in the office building of J. Quentner.

Lafayette.—A. E. Werkhoff, of this city, and Stephen Mills, of Crawfordsville, have been awarded the contract for the plumbing, heating and gas fitting in the new Young Men's Christian building at Crawfordsville, Ind.

Wabash.—State President Wm. J. Woolley, of Evansville, Mr. Carl Stein, of Chicago, and Joe Hayes, of Indianapolis, visited here the middle of the month and succeeded in forming a local association. The officers elected were as follows: Fred Hipskind, president; John W. Fleck, vice-president; Frank H. Henley, secretary and treasurer; Mr. Howard, sergeant-at-arms.

The Hipskind Heating & Plumbing Co. has been awarded the following contracts: Heating in the church and school building at Elwood, Ind.; plumbing and heating in the new school building at Akron, Ind.; heating and plumbing in the Clifford garage; and the heating in the Home Telephone Co.'s building.

Frank Henley, of this city, is installing the heating and vacuum cleaner in the residence of Mr. Walter, of this city.

Kokomo.—State President Wm. J. Woolley and National Director Stein, of Chicago, dropped in unexpectedly a few days ago, while on an organizing trip through the state, and succeeded in reviving the local association and adding new members. A meeting was called which resulted in the organizing of the local, and the following officers were elected for the ensuing year: W. C. Hunter, president; Thos. E. Sullivan, vice-president; A. C. Bennett, secretary and treasurer; A. P. Rose, sergeant-at-arms.

Mr. Bennett has been awarded the plumbing and heating in the Post Office building at Elwood, Ind., contract price \$6,000; also the heating in the Eagle's home in Kokomo.

W. C. Hunter has been awarded the plumbing and heating in the Kokomo Trust building and the plumbing and heating in the Thallman residence.

A. P. Rose has been awarded the plumbing and heating in the Blackledge block.

South Bend.—Wm. Sibley & Co. are at work on the Whitman Bros. warehouse, having been awarded the plumbing and heating.

Thilman & Kestler report having landed some very nice residence contracts.



## Ohio

Defiance.—Carey & Hall, of this city, have secured the contract for heating and ventilating the Methodist Episcopal church at Steubenville, O., a \$60,000 structure.

Dayton, O.—Vehorn & Osterfeld, 407 South Main street, have just completed the plumbing and heating installations in the new apartment building being built by A. A. Mueller on Lincoln street, and the new Jackle apartment building on Stewart street; also the plumbing in the new carriage factory of the M. Weber Company. This firm has contracts for plumbing in several new residences including three houses being built by D. B. McCoy on Burkhart avenue. The Case-Ringelspaugh-Wilson Co., 522 Washington street, have completed the installation of heating plants in the new residences of R. N. Brumbaugh, J. H. Kramer and A. L. Foos.

Coshocton, O.—J. C. Milligan, veteran plumber of this city, has retired from active business and is succeeded by his son, who will continue the business in the same location.

Toledo.—Bryce Heating Co. was awarded the heating contract and Eagen Bros., 237 Erie street, secured the plumbing contract for the Glenwood and the Waite high schools of this city.

The American Warming & Ventilating Co., of Toledo, has secured the contract for installing the heating system in the Owendale, Mich., high school, the contract price being \$300.

Barberton.—The Barberton Plumbing Co. has secured contract for plumbing and heating work in Richard Brown Block on 2d Street, amounting to \$500; also six new houses in Central Allotment.

Toledo.—The coliseum, located at Ashland Avenue and Bancroft Street, will be improved to the extent of \$10,000 in the near future. The improvements will include a complete new heating system and the contracts will soon be let.

The Castleton Co. has arranged for the erection of a \$175,000 building for the exclusive use of physicians, surgeons and dentists, to be erected at Adams and Huron streets. The plumbing will be unusual, and the contract will be of large proportions.

The Attlesby-Dyer Co., of Cincinnati, O., will soon commence plumbing installation in the new fifteen-story Starks building, on the northeast corner of Fourth avenue and Walnut street. The building will require unusual plumbing facilities in view of the fact that many of its floors are to be equipped especially for the use of physicians and dentists.

## Oregon

Portland.—The contract for the heating and ventilating plant in the Jonesmore school has been awarded to W. W. Cox for \$6,210; the contract for plumbing to Williams & Beggs, 386 Flander street, on a bid of \$2,800.

Ellis F. Lawrence, architect, Chamber of Commerce building, wants bids for heating in the Westminster Presbyterian church, Irvington addition.

Thomas Huhne & Co., 275 Fifth street, has the heating contract for the Cohn building, Third and Yamhill streets.

R. H. Thomas, school clerk, 402 Tilford building, is receiving bids for heating, plumbing and ventilating for the addition to the Fernwood school. Plans and specifications on file in the office of Ellis F. Lawrence, architect, Chamber of Commerce building.

H. L. Eckert, 667 Rodney street, is receiving bids for plumbing in a 1½-story residence being built at East Eleventh street for J. H. Campbell.

C. F. Brown, contractor, 309-10 Couch building, wants bids for plumbing in a two-story \$6,000 residence at Forty-first and Flander streets.

Gilbert Goodhue, 716 Jersey street, is receiving bids for plumbing a \$2,000 bungalow on Linn street.

Stokes & Zellar, 390 East Stark street, are taking bids for plumbing in a six-room residence owned by W. J. Lauden, Columbia Park.

The Kendall Heating Company, Portland, Ore., has secured a heating contract in a \$10,000 residence in that city, the plumbing job going to the Jacobson & DeTemple Co.

The school board of Portland, Ore., is taking figures on heating and ventilating appliances for the new Jonesmore school.

Bids are being taken for the installation of a heating system in the Mora county (N. M.) court house.

A large central heating plant is being planned by H. S. Chandler of Marshfield, Ore. It is intended to heat all of the downtown buildings of the business section.

The Canby Hardware and Implement Co., Canby, Ore., which has only recently finished the plumbing in the Masonic Temple and school, has secured the contract for the plumbing work in the new Odd Fellow's hall.

The Tomlinson Co., of Portland, Ore., is issuing a new catalogue, showing the numerous eastern lines which it represents, mostly of valves and steam fittings. The catalogue is made up in loose-leaf form and, including the company's own line of asbestos materials, makes a book of some 500 pages.

Plans for one of the most ambitious central heating system projects ever undertaken on the Pacific Coast are now in the hands of the attorneys for the Northwestern Electric Company at Portland, Ore., who expect to apply for a blanket franchise, said to cover the entire city of Portland, for the operation of steam pipes from a central station. It is reported that specifications and engineering estimates will be ready to place before the city council at the time the request for the franchise is made.

## Pennsylvania

Philadelphia.—Plumbing shops throughout the city are passing through a period of very little business. Wherever you go, men are seen employed around the shops, rigging hydrants and doing other work indicating a lack of business pressure. There has been practically no winter weather to date; not a particle of frost is in the ground as yet.

In its February circular the Franklin National Bank gives a most confident opinion of the business situation in general, saying: "Statistical reports show that mercantile, manufacturing and banking conditions have reached a stage which denotes complete prosperity for the country as a whole. Only once in the last ten years has

general business reached its present high level, and that was during the month of December, 1909. Since the middle of 1912 a period of prosperity has been pretty well assured us, and the improvement since that time has been remarkable.

At a meeting of Master Builders at the Builders' Exchange, January 29th, the following were chosen directors for three years: D. O. Boorse, George W. Watson, W. Nelson Mayhew, J. Turley Allen, Jacob L. Tyson, James J. Quigley and Wm. S. Lilly. For one year, Wm. R. Dougherty.

When the board meets to organize next month a president and other officers will be elected. John R. Wiggins, first vice-president, withdrew from the race for the board of directors and therefore will not be eligible to be elected president of the organization, as a director must be chosen for that office. It is believed Wm. R. Dougherty, first vice-president, will be elected. There are fourteen members of the board whose terms have not expired.

A tuberculosis pavilion, dormitory and dining hall will be built by the city at the Home for Feeble-minded, at Byberry. The total expenditure will be \$47,000. Philip H. Johnson, architect; John W. Emery, contractor.

A Catholic church will be erected on E. Haines street, near Morton street, Germantown, to cost more than \$175,000. John J. Brown, builder, is having the plans prepared.

Forty or more two-story dwellings will be erected in the near future by James B. Stevenson, builder, at 25th street and Indiana avenue.

Upon the site of the Jewish synagogue on 7th street, below Cherry, a \$200,000 store building and warehouse will be erected for S. P. Wetherill. Demolition of the synagogue will be begun at once. F. Webber is the architect. The following builders are submitting estimates: Cramp & Co., James G. Doak & Co., Fuller Construction Company, B. Ketcham's Sons, Irwin & Leighton, Benjamin Seeds, and George Pawling.

Philadelphia.—D. R. Burns & Son, 752 North Nineteenth street, have been awarded a contract to make extensive alterations to the plumbing in the property at 1903 Fairmount avenue, which will be converted into an apartment house.

J. J. Barger, 2518 Columbia avenue, has been awarded the plumbing and heating contracts in the properties at 2908-10 Oxford street for M. Yardley. Cost, \$1,850.

E. F. Shallow, 3621 Hamilton street, is installing the heating system in the residence of Mrs. Mary Eyre, 36 Ludlow street.

Jas. F. Jester, 3621 Hamilton street, has been awarded the heating and plumbing contract in the Calvary church, Forty-first and Brown streets.

W. R. Smith, 4332 Frankford avenue, is installing heating and plumbing in five new houses which are being erected on Margaretta street, Frankford, Pa.

E. B. Story, 6004 Market street, is just completing the heating and plumbing in eight new apartments at Sixtieth and Walnut streets.

H. Manning, 825 Spring Garden street, met with quite a serious accident last week, when a shed collapsed and smashed his left leg. Mr. Manning will be laid up for a month or more.

Tacony.—Hirst Bros. have been awarded plumbing contract at the Byberry Farms, Byberry, Pa.

J. M. Kirk is doing the heating and plumbing in the new church that is being erected on Argyle avenue.

Ambler.—L. C. Allen reports quite a lot of heating and plumbing work on hand now and is just completing installation in a new house at Ft. Washington, Pa.

F. Sabin & Co., 237 Broad street, have been awarded the contract to install heating apparatus in the building at 232 Arch street for the United Stove Repair Co.

Pittsburgh.—Plumbers and heating and ventilating contractors in the Pittsburgh district are more than elated over the prospect for the securing of a lot of new business this spring. The architects report an excellent inquiry for home construction, while the larger builders report the possibility of a number of large buildings going up in the downtown section of Pittsburgh with the opening of spring.

The construction of the large Baer-Kaufman department store of 12 stories will be about the largest piece of new construction that will be started April 1, although the Bell Telephone Co. and the Rossenbaum Department Stores Co., announce that they will also soon start work on their new building.

The city and county will likely erect a large municipal building jointly this year, and the ground for this improvement was purchased last week.

In the East End district the plumbers are rather active on small jobs, although home construction in that part of the city, with especial reference to apartment house construction, will be greater this spring than ever.

The Pennsylvania Railroad Co., of Pittsburgh, plans to erect a new office building for commission merchants in the Twenty-first street yards, and there will be a considerable amount of modern plumbing work to be specified for this improvement.

Among the contracts awarded in the Pittsburgh district during the last few days have been the following: The Erie Heating & Plumbing Co., of Erie, Pa., has been awarded the contract for the plumbing work in the new \$100,000 building which is being erected in Erie by the Bell Telephone Co.

M. M. Cribbs, a well-known plumber of Edgewood, has secured a good contract from the New Building Co., of Wilksburg, a suburb of Pittsburgh. The firm is erecting nine residences, and Mr. Cribbs has got all plumbing work in this construction.

Weldon & Kelly Co., Wood street, has been awarded the plumbing contracts in four residences which are under construction for A. G. Starr of this city.

All the plumbing work which is to be done in the six duplex residences which are being built in Edgewood by Marsh D. McWhinney has been awarded to James A. Wilkins, a well-known plumber in Wilksburg.

Frank Kibler, 527 Montooth Avenue, Pittsburgh, was awarded the plumbing work in the new postoffice being built at Ashland, O.

S. D. Stiffig, Blairsville, Pa., has been awarded all of the plumbing work in the \$5,000 residence being built there by E. T. Taylor.

Moss and Blakely of this city have been given the plumbing contract on the \$10,000 residence being erected by L. H. Felabom of this city.

C. Baumgardner of McKeesport, Pa., has awarded the Chisholm Heating Co., of that city, all the plumbing and heating work scheduled for his new \$25,000 residence.

The White & Crawford Co., of Monongahela, Pa., have secured the plumbing work on the \$7,000 residence being built in that city by H. L. McKinney.



Ashbourne.—J. H. Nittrouer is doing the plumbing and heating work in the new residence that is being built in Elkins Park, Pa.

Wyncote.—Edw. Tyson has been awarded contract to make extensive alterations in the plumbing system at the Abingdon high school.

Wilkesbarre.—Montayne & Son, 36 N. Main Street, are erecting a new building at North Main Street and Hollenbeck Avenue, which they expect to occupy about April 1st.

Williamsport.—W. H. Freeburn, of 712 West Edwin Street, has had an unusually busy fall and judging from the contracts he still has under way one is led to believe that he will be busy for some time to come. Here is the list: Plumbing in the Pennsylvania R. R. freight depot at Newberry, Pa.; plumbing in Goldenburg Brothers' store building; plumbing in ten brick residences on Spruce Street; plumbing in large double brick residence on Market Street for Vanamante Building & Planing Mill Co.

Marcus Hook, Pa.—This town has struck quite a large building boom in the past three months. The American Viscoe Co. has just awarded Rhoades Bros., Chester, Pa., another contract for 169 houses. This makes a total of 235 houses which this concern has erected and plans are on foot now to erect 135 more.

The Century Stove & Manufacturing Co., of Johnstown, Pa., manufacturing a line of gas cookers and heaters, has opened a branch at 415-19 S. San Pedro Street, Los Angeles.

## Tennessee

### Some Tennessee Hunters.

One of the enthusiastic Mississippi valley hunters is E. A. Wilhelm, of the Wilhelm Plumbing Co., 291 Monroe street, Memphis, Tenn. Mr. Wilhelm owns a launch, which he uses to mighty good advantage on the old "Mississippi." This launch, the "Yankee Girl," was used recently on a trip which Mr. Wilhelm and a party of



Three Tennessee Hunters.

Memphis friends took up the river and which was productive of results as shown in the illustration. Mr. Wilhelm is shown at the right of the picture.

Chattanooga, Tenn.—J. W. Dacus Plumbing & Electric Co. has been incorporated with a capital of \$10,000. The incorporators are: J. W., J. A., and A. Dacus, E. L. Roberts and E. B. Madison.

## Washington

Seattle.—The Eckart Plumbing & Heating Co., 1614 Third avenue, has the following plumbing and heating contracts on hand: Butterworth & Co's. new addition on First avenue; the Alki school, and the plumbing in the ten-story reinforced concrete store and office building on Third avenue, near Pine street, being erected by Crawford & Conover. The contract for heating in this latter building has been awarded to W. D. Allen, People's Bank building.

Robert Brown, 115 Tenth avenue North, is receiving bids for steam heating and plumbing for a three-story reinforced concrete storage building under construction on the corner of Thomas and Westlake avenue for George A. Smith.

Ernst Hardware & Plumbing Co., 514 Pike street, on a bid of \$855, was low for plumbing the Queen Anne branch library, while the Lavan Plumbing & Heating Co., 1317 Third avenue, was low for the heating on a bid of \$2,100.

A. W. Quist, Hoge building, who has the contract for building a four-story reinforced concrete department store for the Congress Trading Co., Ketchikan, Alaska, is receiving bids for steam heating and plumbing in the building.

The Pearson Construction Co., New York block, is receiving bids for plumbing and hot-water heating in a residence being erected on Thirtieth avenue and Cherry street for S. G. Spring.

The University Plumbing & Heating Co., 3939 Fourteenth Northeast, has been awarded the contracts for plumbing, heating and gas fitting in the following residences: R. E. Jarvis, 2342 Thirty-fourth avenue South; C. H. J. Stoltenberg, 1128 Twenty-first avenue North; A. O. Hawes, Bagley avenue, and A. E. Chalfant, 4710 Sixteenth avenue Northeast.

The Independent Plumbing & Heating Co., 2404 First avenue, has the contract for plumbing and steam fitting in the Phinney building, 812 First avenue, and the contract for plumbing and steam fitting in the German-American Bank, 822 Third avenue.

Rustad Heating & Plumbing Co., 315 Second avenue South, will install plumbing for Syetugu Co., 68 West Yesler way.

B. L. Randall, 4928 Fifty-second avenue South, will install plumbing in M. Gilmore's building at 1215 First avenue.

Simpson-Pepper Co., 322 Cherry street, has the contract to install plumbing in a building at 1534 Pike street for Guse & Co.; for John Kalem, 86 Pine street, and 33 bathrooms in the Savoy hotel.

Montgomery & Lavine, 4140 Fourteenth avenue Northeast, will install plumbing in four residences, as follows: John B. Metcalf, 4110 Sunnyside avenue; C. J. Blake, 2021 Thirty-third avenue South; Dr. Mabel Seagrave, 2720 Fifteenth avenue South; B. Lavine, 4207 Eleventh avenue Northeast.

W. K. Hendrickson, 6006 Hillman place, will install plumbing in four residences owned by J. R. Van Emelen.

C. E. Symonds, 2767 California avenue, will install plumbing in a residence owned by J. Lawson, 3274 Walnut avenue, and for W. J. Duckworth, 3425 Thirty-ninth avenue South.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing Heating Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1057

CHICAGO, MARCH 15, 1913

Vol. 62, No. 11

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## ARE ADVERTISED GOODS EASIEST TO SELL?

**T**HAT the consuming public is becoming better educated to quality in plumbing and heating goods and methods, everyone in the trade will admit.

That much of this education is due to consistent and businesslike advertising by the manufacturers is evident.

Wherein has the plumber and fitter benefited by this advertising? is often asked.

Any broad-minded business man will admit that the exploitation of the advantages of plumbing and heating goods before the buyer, properly followed up, will not only increase the sale of the particular lines advertised, but will make the sales of similar goods better.

Then why sell advertised and trade-marked goods?

If for no other reason—**self-interest.**

You can more readily sell a man what he wants and asks for, than something unknown to him, though somewhat lower in price.

You have more assurance of quality in advertised goods than in those not so well known. You naturally ask, why?

No manufacturer can year after year afford to go down in his pocket to pay for advertising when his goods do not give satisfaction. He seldom makes a profit on his first orders—it is the repeat orders that make the money for him.

Couple your own ability and standing in your community with that of well-known trade-marked goods and you have a team that will work in double harness to the satisfaction of everyone.

On the other hand, use the same ability and aggressiveness in pushing unknown lines and you may make a larger **temporary** profit, but your **repeat** business, without which no established business house can prosper, will be a disappointment.

The increase in private brands used to provide "competitive" lines with which to overcome, by price arguments, the prestige of well-known trade-marked goods, is no longer noticeable. It has become a decrease instead.

Unless your co-operation is secured by means of advertising that reaches **you**, through your trade paper and by other means, the work of the campaign will only result in antagonism and distrust.

Many manufacturers have said: "We'll **force** the plumbers to handle our goods, whether they want to or not."

Bright idea! Five years ago a concern that was marketing a good article, adopted that policy. They made a big splurge in the national publications, sold their product right and left any way they could, and seemingly made money. But they ignored the fact that the man who was to furnish them the repeat orders was the master plumber, and that he could be reached through the trade papers.

Today that concern has awakened. Into the same field, however, starting with less capital, but with a full appreciation of the part the master plumber plays in business, came another firm. Their success has been a solid, substantial one; they co-operate with the trade at every point; they have used Domestic Engineering regularly and consistently to tell of their goods and policies.

The second concern last year paid a substantial dividend, and has done so every year they have been in business.

The other one is tottering—to get back its prestige with the trade will cost an enormous sum—and it will be only where it was years ago.

The manufacturer who goes to the plumber and fitter through his favorite trade paper, secures his co-operation and works with him to advance his interests, will get his reward in coin of the realm.



Fig. 1. Basement Plan,

The manner of running the soil, waste and vent stacks is clearly shown in the drawings. All of these stacks are extra heavy cast iron, except the acid waste, which is special high carbon extra heavy cast iron, tar coated. This waste is extended to the rain water drain, as shown, with running trap in manhole, and fresh air inlet similar to the house trap.

The branch soil and wastes are extra heavy cast iron except stacks D and E, which are standard galvanized wrought iron.

The branch vents are standard galvanized wrought iron with galvanized malleable fittings.

The leaders and areas are drained to dry wells through 6-inch vitrified tile drains, which extend within 5 feet of the building.

The refrigerator wastes are standard galvanized wrought iron, 1½ inches in diameter and unite with the floor drainage in the basement, discharging into a sump.

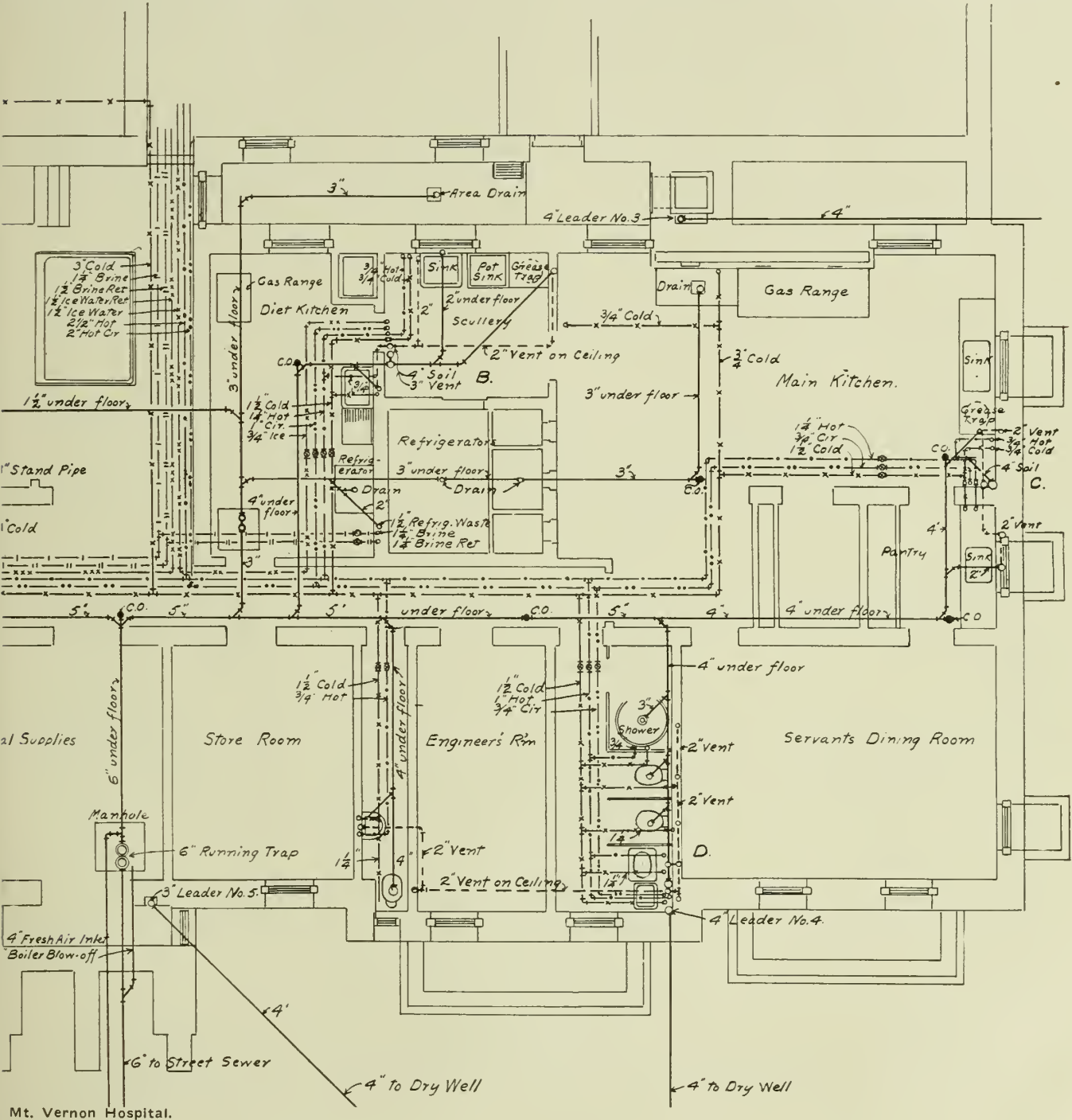
Water Supply.

From the high pressure main in North Seventh Avenue a 3-inch tap is taken out and extended into the building, and is provided with a controlling valve where the main enters the building.

Adjoining the controlling valve on the house main, there is provided a 3-inch Worthington turbine water meter containing a fish trap.

A 3-inch valved branch and check is extended from the meter to the filter, which consists of a Loomis Manning double cylinder filter, having a capacity of 50 to 100 gallons per minute. The filter has a 3-inch valved discharge, which connects with the rain water system, and a full sized valved, by-pass.

The manner of running the cold water distributing system is clearly shown on the plans. The supplies required for the sterilizing apparatus are tinned brass pipe, iron pipe size with tinned brass beaded fittings.



Mt. Vernon Hospital.



### Hot Water Circulation.

In connection with the hot water supply system, a Davis hot water service heater, 38 inches in diameter and 77 inches long, capable of heating 1,000 gallons of water from 50 to 160 degrees Fahr. with steam at 2 pounds pressure, has been installed. The heater is provided with 2½-inch cold water inlet, 2½-inch hot water outlet and 2-inch circulation inlet. It has a 3-inch steam connection and is furnished with an automatic thermostat and thermometer of the Standard Temperature Regulation Co.'s make.

The heater is supported from the ceiling by heavy strap hangers.

A 2½-inch valved main is run from the hot water heater on the basement ceiling, from which the branches to the various fixtures are taken.

All the piping for the hot water system is tinned brass, iron pipe size, with tinned brass beaded fittings.

From a point just below the highest fixture in each riser, a circulation branch is taken out and dropped to a circulation main on the basement ceiling, which is continued to the hot water heater, provided with valve and check. The entire circulation system is also tinned brass.

### Ice Water System.

It is the intention to supply the sinks in the diet kitchens and the pantry on the first floor with ice water, in addition to the usual hot and cold supplies.

A ¾-inch valved branch and check is extended from the

circulating pump to the ¾-inch ice water riser on stack "B." This riser is carried through the attic space to a point adjoining the stair well where it drops to the basement and is extended back to the cooling tank. An automatic air relief valve is placed at the highest point of the riser in the attic. The piping on the ice water system is tinned brass. The supply branches to the ice water faucets are ½ inch in diameter.

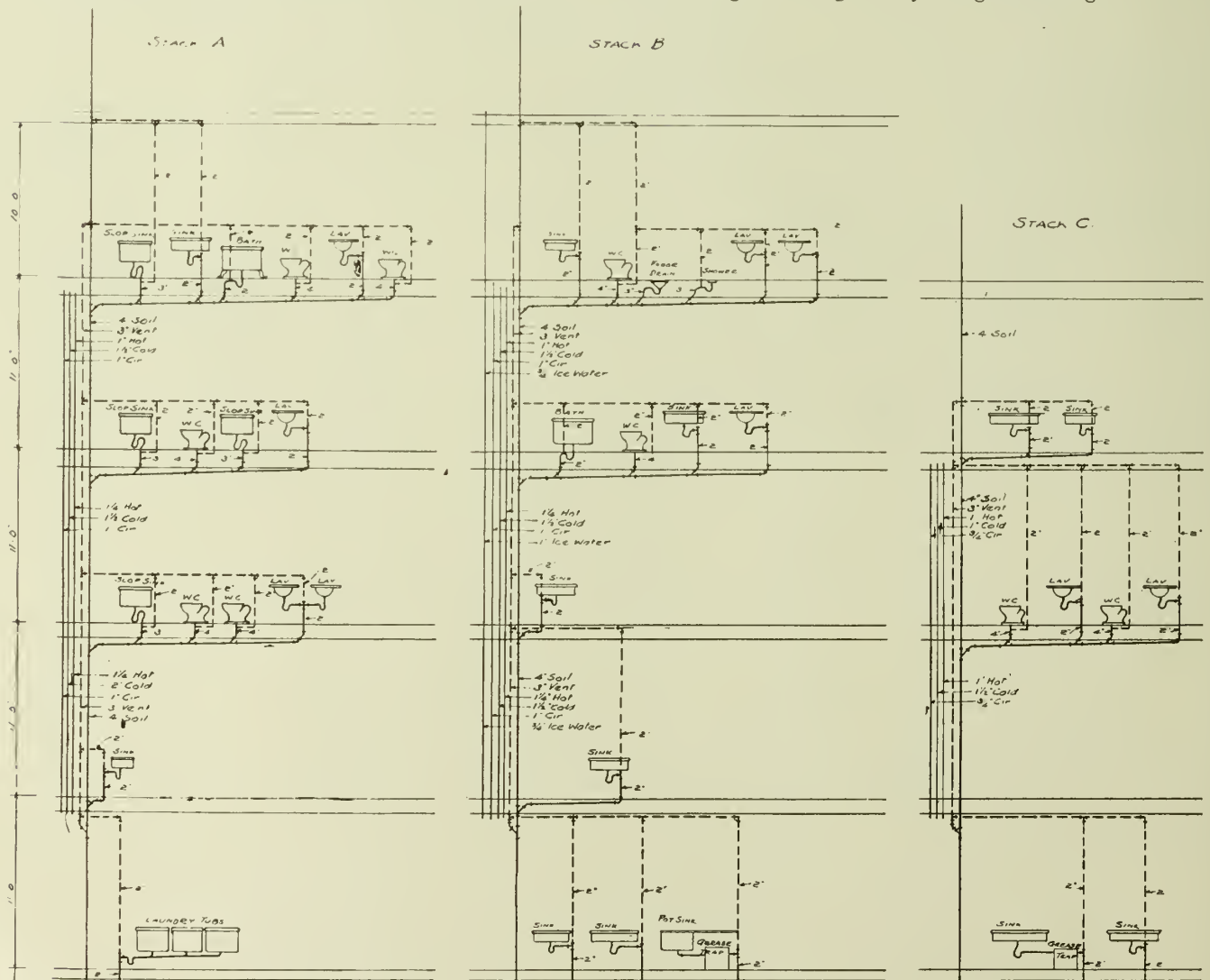
Provision against fire consists in the installation of a 3-inch galvanized wrought iron stand pipe, having a 2½-inch valved branch at each story, and 75 feet of unlined linen hose on hose racks.

### Fixtures.

There is a total of seventy-four fixtures in the building, consisting of eighteen water closets, seven bath tubs, four showers, nine slop sinks, fifteen sinks, twenty-one lavatories.

This hospital was designed by Milton See & Son, architects, New York, William C. Tucker, New York, was the sanitary engineer and prepared the accompanying plans.

Portland, Ore.—The J. F. Shea Plumbing & Heating Co., Second and Ankeny Streets, have been awarded the following contracts: Plumbing in the new University Club, Sixth and Jefferson Streets; plumbing, heating and ventilating in the eight-story Morgan building.



Plumbing Diagram of the

# Report of Ohio Inspector of Plumbing

William C. Groeniger Makes Timely Address Before Master Plumbers' Association at Toledo, Ohio, February 20, 1913

## History of Legislation.

Some six years ago the attention of several persons was called to the unsanitary condition existing in many of our state and county institutions that were beyond the jurisdiction of plumbing inspection. A committee was appointed to draft a state plumbing law providing for the appointment of a state inspector of plumbing. The bill was presented to the legislature, but never got further than the committee.

At the next election the Honorable Clifford T. Schlemmer, a member of your Cincinnati association, was elected a member of the House of Representatives from Hamilton County, and to him fell the responsibility of introducing the bill which afterward became known as the "Schlemmer Bill."

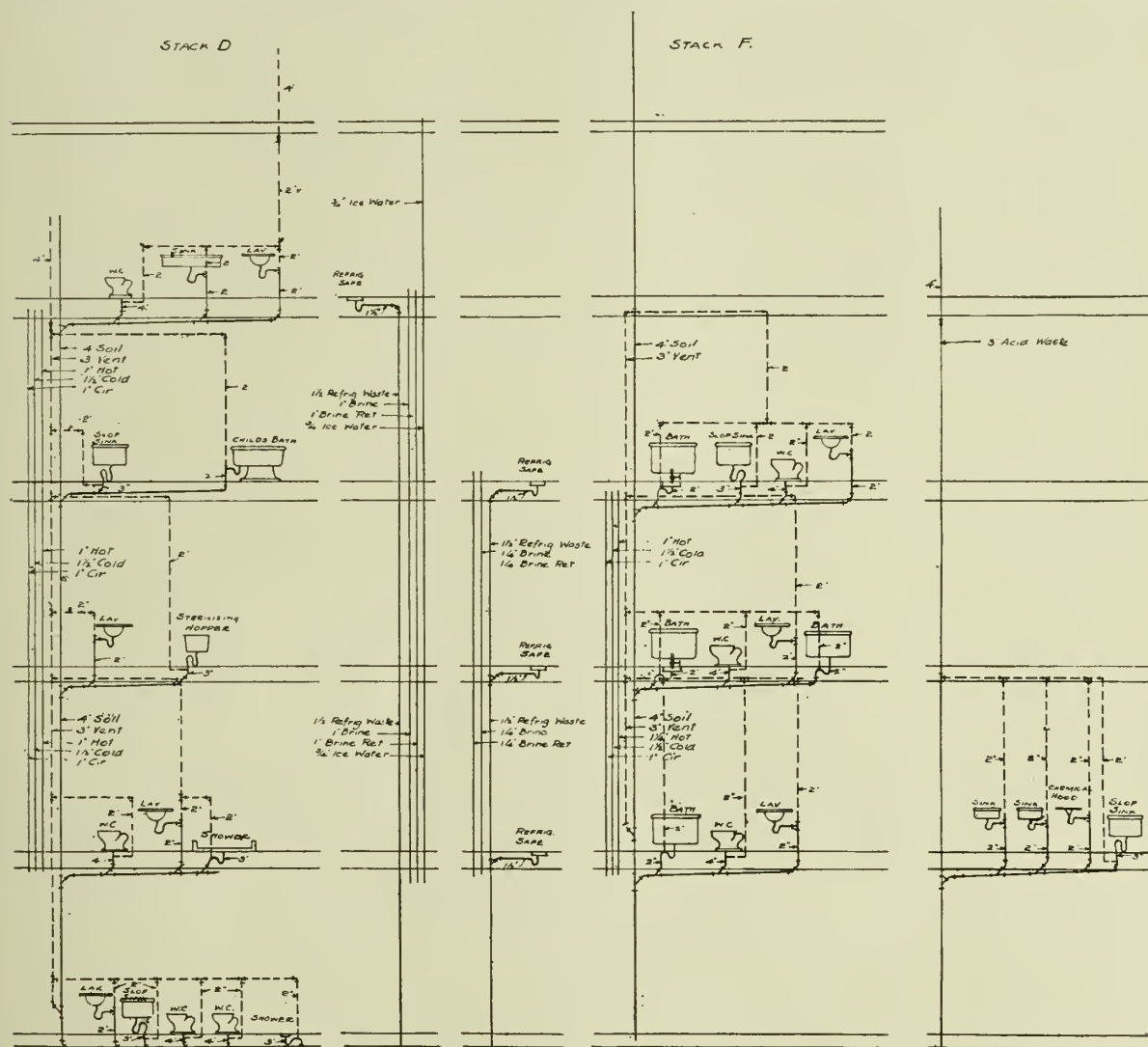
The Springfield convention endorsed the bill and sent a committee of four to Columbus to appear in its behalf, and, although they in conjunction with the committee from the journeymen, coupled with the efforts of Mr. Schlemmer, were successful in having the bill reported out of committee, the House voted on the bill prior to its adjournment and failed owing to a lack of a constitutional majority.

Profiting by the experience obtained the bill was again introduced the following year, and after considerable work on the part of Mr. Schlemmer, assisted by both the Masters' and Journeymen organizations, the bill passed May 10, 1910, and became a law. Another act in history had been completed, Ohio holding the distinction of being the first state in the Union to create the office of state inspector of plumbing. On January 25, 1911, the State Board of Health appointed the speaker to take up the duties of the office on February 15, 1911.

I assumed the duties of the office with a general idea and knowledge of its requirements and responsibilities, and with the understanding that my first duty was the impartial enforcement of all laws governing the department.

Sanitary and scientific plumbing and drainage is preventive medicine, and the necessity of a minimum standard, universal state plumbing code and state inspection become more pronounced as the work progresses.

During the past 25 years wonderful improvements and advancement have been made in plumbing fixtures. The cop-





per tub, wooden wash tray and sink, marble lavatory with china bowl, pan, hopper, offset and washout closet have been eliminated by enameled iron and porcelain ware of dazzling whiteness.

Sanitary plumbing fixtures are now made in such vast quantities and so great a variety of design that it is possible to find among the offerings of the manufacturer fixtures at prices not exceeding the cost of the old-fashioned fixtures, which were barricaded behind wooden enclosures.

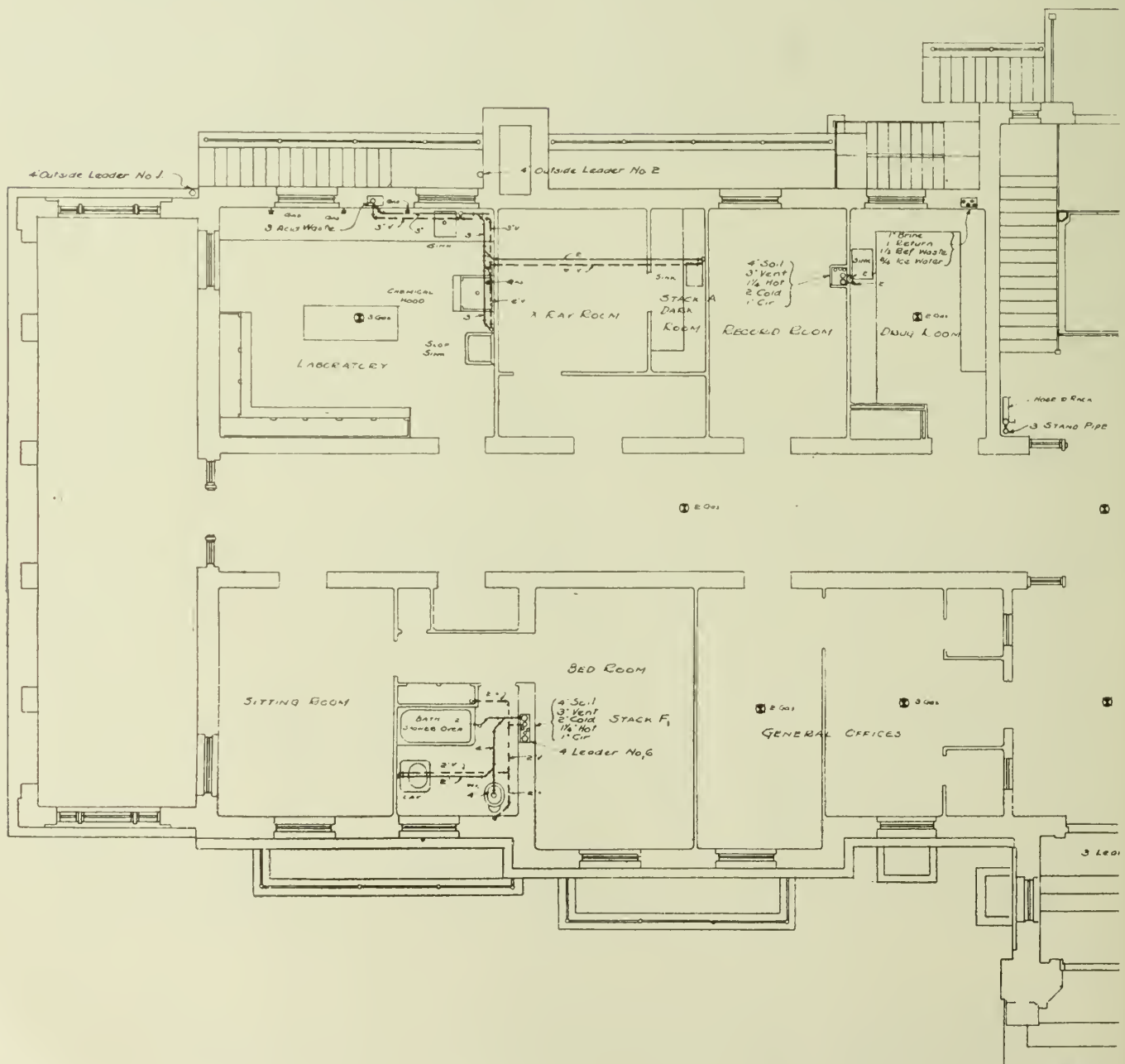
The sanitarian now realizes that these enclosures were collectors of dirt and dust, the breeding place of noxious germs, and oftentimes a screen for insanitary and defective plumbing.

However, an error is often made by many, who believe that by selecting plumbing fixtures of the latest and most sanitary type, they will be insured of having a well-equipped sanitary plumbing system. A building may have the finest kind of plumbing fixtures, and still be very insanitary. The installation of soil, waste and vent pipes, which carry off the wastes, is just as important and one of the units that go to

make up a sanitary system. Frequent stoppage in pipes and traps, cheap and defective material, faulty and careless workmanship, which will permit the foul air from sewers to discharge into a building, are not alone costly but injurious to health. Human excrement is the most productive source of disease, and must be swiftly and safely disposed of.

Foul air from sewers often contains carbonic acid gas, most dangerous to health, and is guarded against by installing plumbing systems, so that the waste will pass through the system as rapidly and with the least amount of resistance possible; trapping the plumbing fixtures and protecting the fixture trap from siphonage and back pressure by means of vent and relief pipes; insuring the entire system of an air circulation, and avoiding in a great measure the possibility of vegetable and animal matter finding lodgment in the sewer, decomposing and generating into gases that act chemically on lead and iron, and will destroy either in time.

The waste and vent pipes of a plumbing system are placed beneath floors and in walls and partitions, usually in com-



First Floor Plan of the Mt. Vernon Hospital,

paratively inaccessible places, and the water seal in most fixture traps is invisible.

It is obvious that if the construction is faulty the public health may be endangered, and the defect by reason of its location may not be suspected; and investigation shows that the conditions which prevail in the absence of sanitary regulation usually lead to reckless competition, careless workmanship and the use of cheap and defective material.

Plumbing laws and plumbing inspection remove these dangers in providing that all soil, waste and vent pipes within a building be installed gas and water tight, as absolutely sanitary as modern science and mechanical skill can make them, and inspected and tested before they are concealed or enclosed.

The prevention of disease is intimately allied to human happiness, and causes the reduction of pauperism and immorality. It is therefore of vital importance that sanitary plumbing be demanded and enforced by state legislation.

Here the question will arise as to what effect plumbing laws and inspection have on plumbing. It is impossible to estimate their value, but outside of health considerations,

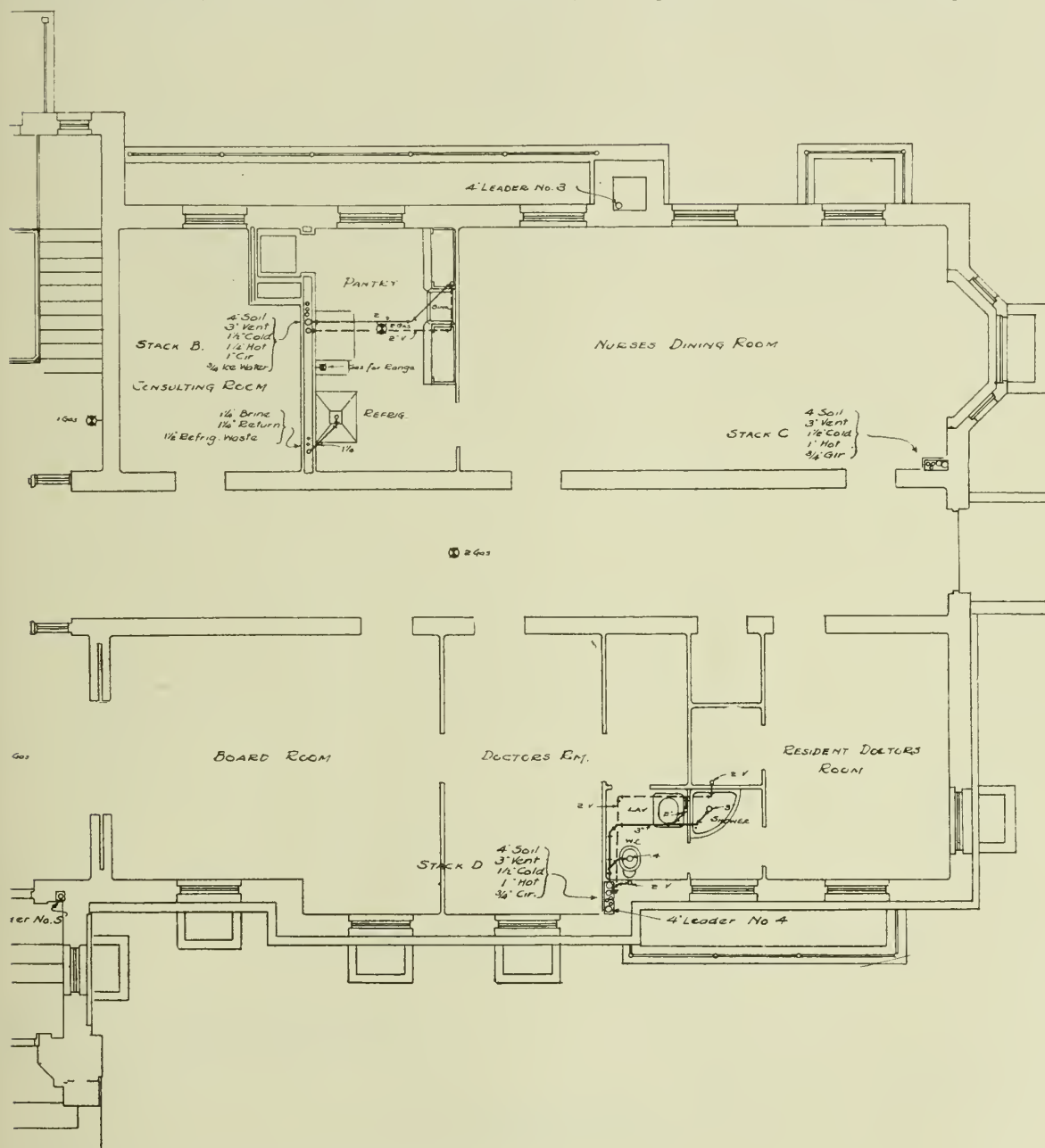
which are the most important, they will save thousands of dollars now wasted in repairing defective and dishonest plumbing, both as to material and labor.

#### Progress in Plumbing Regulation.

Plumbing laws and regulations have not kept up with the progress made in plumbing fixtures.

The 78th General Assembly saw the necessity of uniform building regulations and appointed as a Building Code Commission the secretary of the State Board of Health, state fire marshal and state inspector of workshops and factories, with instructions to prepare and submit to the 79th General Assembly a state building code.

Included in the report of the Building Code Commission to the 79th General Assembly was Part IV, Sanitation, "a universal, minimum standard state plumbing code for all buildings," which was accepted and became effective August 15, 1911. Those interested in sanitary plumbing were of the opinion that a much-needed law had been enacted. However, the attorney general ruled that the administrative sections of the law did not cover residences, and was therefore not applicable to this class of buildings.





Sanitary plumbing is more essential to protect the health of the people in a residence, where they eat, sleep and spend the best portion of their lives, than in a school, theater, church or other public or semi-public building.

In order to refrain from the enforcement of two plumbing codes, a city code for residences and the state code for all other buildings, it would have been necessary for a city council to adopt the state code by ordinance, requiring the expenditure of a considerable sum of money in each city.

It is essential that cities should have home rule in the appointment of local inspectors and the enforcement of the law, but the state should establish a minimum law for all buildings in all cities, and make provision for inspectors to enforce the law in municipal corporations that are without and unable to maintain local inspection.

Outside of health consideration, which, of course, is the greatest gain, efficiency and economy are two principles involved in plumbing laws; however, a serious mistake would be to sacrifice efficiency for economy.

Standardizing the methods of construction, sizes, weights and make of materials, fittings, pipes, etc., is a move in the direction of economy, and should be followed by a research in sanitary plumbing which would give to the people a greater degree of efficiency at the least possible cost.

The State Board of Health's duty is prevention of disease, and they should be in a position to conduct tests and research,

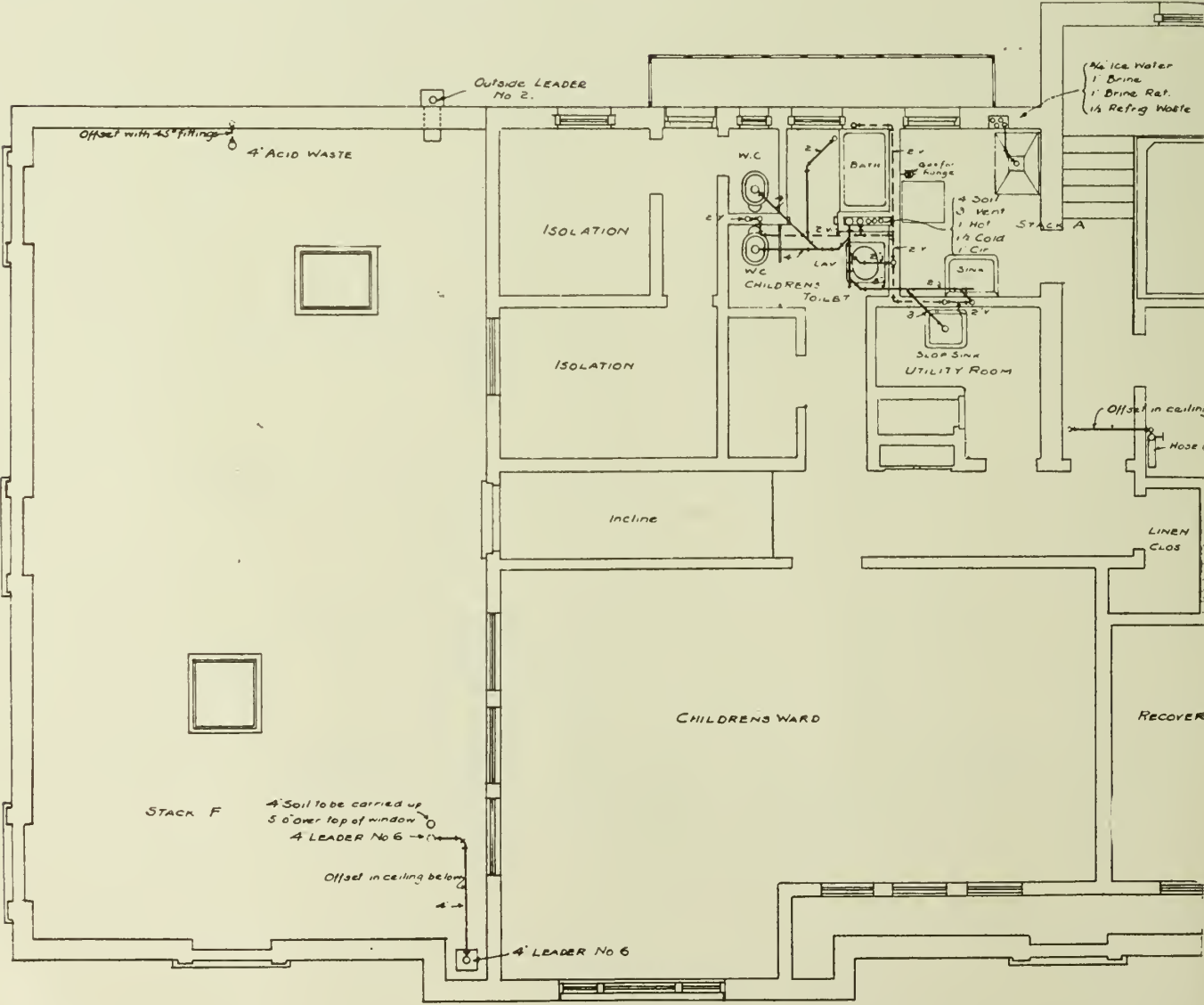
from both an economical as well as a sanitary standpoint. A moderate sum spent judiciously on sanitary research would mean a net return of hundreds of thousands of dollars to the people.

State and Local Inspection.

A more comprehensive idea of the volume of work confronting this department can be made from the following classification of cities having local inspection and inspectors, and those dependent upon state inspection.

Cities Having Local Plumbing Inspection and Number of Inspectors.

City.	Population 1910.	Number of Inspectors.
Cleveland .....	560,663	8
Cincinnati .....	363,591	5
Columbus .....	181,511	4
Toledo .....	168,497	2
Dayton .....	116,577	2
Youngstown .....	79,066	1
Akron .....	69,067	1
Canton .....	50,217	2
*Springfield .....	46,921	1
Lorain .....	28,883	1
*Portsmouth .....	23,481	1
Sandusky .....	19,989	1
Ashtabula .....	18,266	1
Norwood .....	16,185	1
Lakewood .....	15,181	1



Fourth Floor Plan of the Mt. Vernon Hospital,

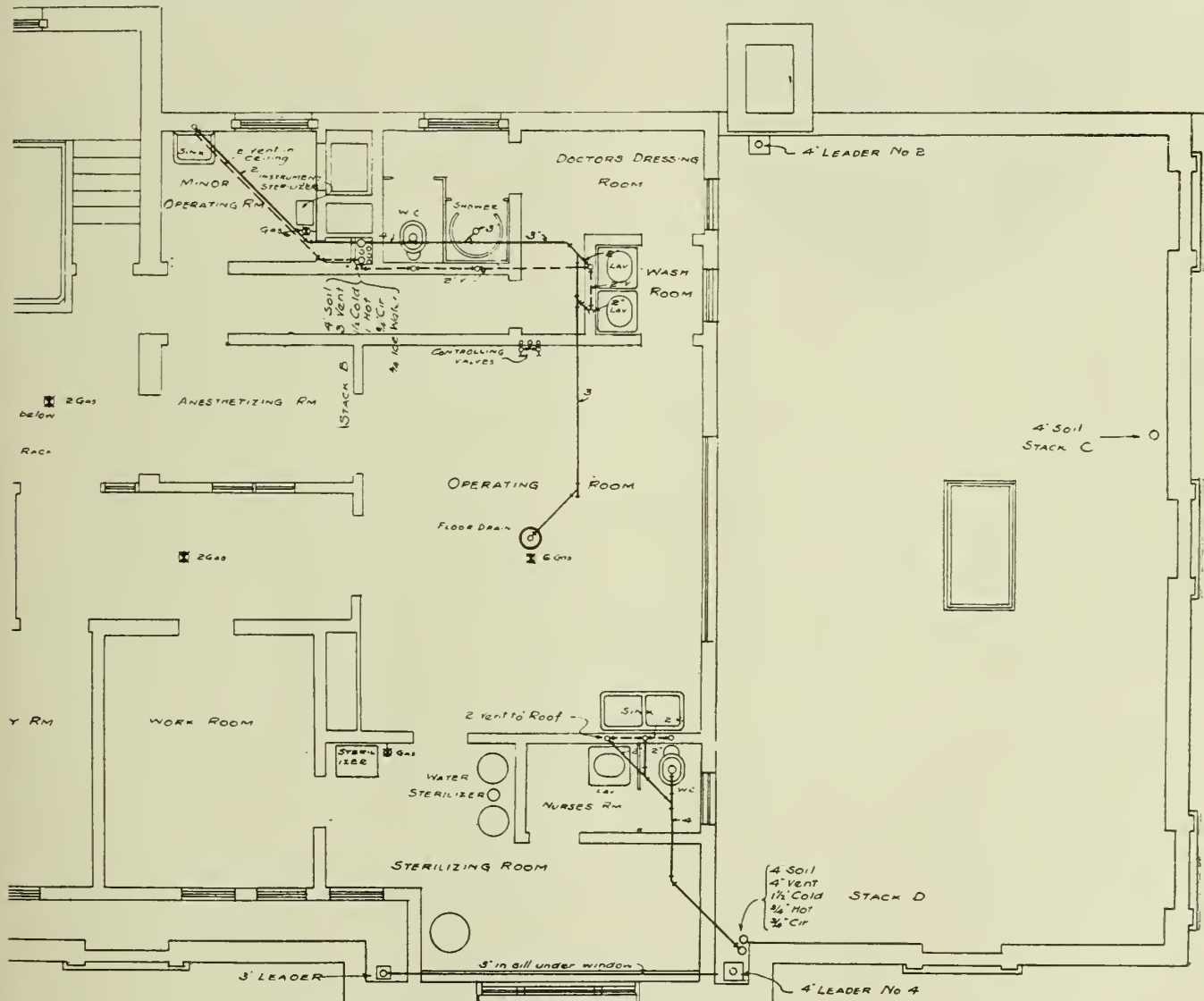
Alliance .....	15,083	1
Massillon .....	13,879	1
Cambridge .....	11,327	1
Warren .....	11,081	1
Fremont .....	9,939	1
Coshocton .....	9,603	1
Fostoria .....	9,597	1
East Cleveland .....	9,179	1
*Salem .....	8,943	1
*Conneaut .....	8,319	1
Wellsville .....	7,769	1
Greenville .....	6,237	1
St. Marys .....	5,732	1
Jackson .....	5,468	1
Orrville .....	3,101	1
30 .....	1,893,352	47

\*Plumbing inspectors appointed recently.

Thirty cities with a combined population of 1,893,352, having 47 plumbing inspectors, and enforcing 30 city plumbing ordinances, which vary in their requirements as to fixtures and construction, are not only confusing to architects, manufacturers, contractors and plumbers, but are a barrier to progress and economy. A universal, minimum standard state plumbing code that will simplify construction and standardize materials will mean progress, economy and efficiency.

Cities with a Population of More Than 5,000 Dependent Upon the State for Plumbing Inspection.

City.	Population 1910.	City.	Population 1910.
Hamilton .....	35,279	Galion .....	7,214
Lima .....	30,508	Kenton .....	7,185
Zanesville .....	28,026	Norwalk .....	7,858
Newark .....	25,404	Urbana .....	7,739
Steubenville .....	22,391	Van Wert .....	7,157
Mansfield .....	20,768	Washington C. H. ....	7,277
East Liverpool .....	20,387	Ashland .....	6,795
Marion .....	18,232	Canal Dover .....	6,261
Findlay .....	14,858	Circleville .....	6,744
Elyria .....	14,825	Nelsonville .....	6,082
Chillicothe .....	14,508	Sidney .....	6,607
Piqua .....	13,388	Troy .....	6,122
Middletown .....	13,152	Wellston .....	6,875
Ironton .....	13,147	Wooster .....	6,136
Lancaster .....	13,093	Athens .....	5,463
Bellaire .....	12,946	Bellevue .....	5,209
Marietta .....	12,923	Bowling Green .....	5,222
Tiffin .....	11,894	Delphos .....	5,038
Barberton .....	9,410	Gallipolis .....	5,560
Delaware .....	9,076	Madisonville .....	5,193
Martins Ferry .....	9,133	Newburg .....	5,813
Mt. Vernon .....	9,087	Painesville .....	5,501
Bellefontaine .....	8,238	Ravenna .....	5,310
Bucyrus .....	8,122	St. Bernard .....	5,002
New Philadelphia .....	8,542	Wapakoneta .....	5,349
Niles .....	8,361		
Xenia .....	8,706		
Defiance .....	7,327		
		53 .....	576,803



Mt. Vernon, N. Y. Described on Pages 302 to 304.



Fifty-three municipal corporations with a population of more than 5,000, and a combined population of 576,803  
 Together with 698 municipal corporations with a population of less than 5,000, and a combined population of .....2,296,966  
 Or 751 municipal corporations with a combined population of .....2,873,769  
 Or 60 per cent of the population of Ohio, covering 41,060 square miles, and are dependent upon the state inspector of plumbing for plumbing inspection.

In addition to administering the provisions of Part IV, Ohio State Building Code, which makes it the duty of the State Board of Health to make at least two (the first or water, and the final or smoke) inspections and tests of the plumbing and drainage of every public or semi-public build-



William C. Groeniger, Ohio State Plumbing Inspector.

ing in 751 municipal corporations that are without local inspection, the present law requires that the state inspector of plumbing inspect any and all private institutions, sanitariums, hospitals, schools, prisons, factories, workshops or places where men, women or children are or might be employed.

The reports of conditions which existed in many of our state and county institutions (mentioned in 1911 report) warrant the inspection of the remaining at the earliest possible date.

It is obvious that the beneficial effects of this law will depend upon its proper enforcement, and that it is a physical impossibility for the state inspector of plumbing to make these inspections, take care of the correspondence in the office and examine and approve plans, unless provision is made for additional inspectors.

During the year it became evident that it was going to be a physical impossibility for one man to take care of the work, and in order to relieve the situation a recommendation from the department to the State Board of Health that local plumbing inspectors be appointed in the following cities was approved and the authorities notified:

Barberton, Bellaire, Bellefontaine, Bucyrus, Chillicothe, Conneaut, Delaware, East Liverpool, Elyria, Findlay, Fostoria, Hamilton, Ironton, Lancaster, Lima, Mansfield, Marietta, Marion, Martins Ferry, Middletown, Mt. Vernon, Newark, New Philadelphia, Niles, Piqua, Salem, Steubenville, Tiffin, Xenia and Zanesville.

Replies were received from Fostoria, Conneaut and Salem, stating that plumbing inspectors had been appointed.

The authorities in Hamilton, Bellefontaine, Elyria and Mansfield desired further information and a draft of an ordinance was furnished to all of the cities included in the recommendation.

I am not prepared at this time to say how many of the above cities have complied with this recommendation, but I can assure you that the matter will be followed up until the desired results are obtained.

#### House Bill No. 208.

House bill No. 208, now on the calendar in the House of Representatives, amends the original Schlemmer bill, and gives the authority to the State Board of Health to appoint deputy plumbing inspectors.

It also amends the fee system and replaces the set fee of \$5.00 with a graduated fee system, and there are no exceptions. The principle of a set fee was found to be exorbitant to the small job and inadequate for the large job.

This bill has the approval of the State Board of Health and was reported out by the Committee on Labor and recommended for passage.

#### Business Future.

The business future of the plumbers in this state does not depend entirely upon plumbing laws and plumbing inspection. It is dependent upon those engaged in and at the business. It is commendable to be able to say that it was unnecessary to resort to legal procedure during the past two years to enforce plumbing laws.

Things done entirely under the whip of the law are done sullenly, reluctantly and never successfully. Popular laws which meet with the approval of the people are usually easily enforced, owing to the readiness of our citizens to obey them.

In order to enjoy the best results obtainable, it is absolutely necessary to have the co-operation of the plumbers throughout the state, and we must show to the citizens of Ohio that plumbing laws are drawn for the benefit and protection of the people and not in the interest of the manufacturer, specialty man, master or journeyman plumber.

There is not much value to a master or journeyman plumber whose only thought was to get his wages or collect his bill. Unless there is a higher motive than the mere dollar sign attached to his work he is a detriment to the business. Nor do I hold an exalted opinion of the manufacturer who wants special privileges, who would have his manufactured article specified in a plumbing code in order to freeze out his competitors. He has not the best interest of the business at heart. The plumbing inspector who will draw the line so close as to make the plumbing code a hardship, or one who will or has the tendency to show political or other favoritism, who will allow his personal antagonism to interfere with the just administration of the rules, or a corrupt inspector, can work more harm and do more damage to the plumbing business in one year than can be righted in ten. Plumbing inspectors and inspection should be entirely removed from politics.

(To be continued.)

Pittsburgh.—The W. N. Sauer Plumbing Co., 804 Chestnut Street, were awarded the plumbing contract in buildings for the Carnegie Technical schools, also a large office building for the Buffalo Natural Gas Fuel Co., at Buffalo, N. Y.

Columbus, O.—The Lamneck Co., of this city, was awarded the heating contract for the Frazeysburg school building.

Omaha, Nebr.—B. Grunwald, 1214 Douglas Street, has secured contract for the plumbing and heating in the new hotel at Hastings, Nebr.

# Publicity for Plumbers



SEVERAL weeks ago some suggestions were offered whereby the plumber might make use of the influence of his local newspaper in cultivating the good will of the readers toward his particular business.

Charles H. Dawson, of Bellevue, Ohio, has recently made use of a series of eight talks, which were printed as paid advertising on consecutive days in his local newspaper. He has already received a number of comments on the plan, as well as several substantial orders, which he feels can be traced to it.

These talks are printed in double column of the paper, in the size as shown herewith. They are written for the owners in a small city, but could be used in a larger one as well.

If preferred, these talks could be run once or twice a week, and followed with others, in which educative facts were presented in a business-like way.

## Talk No. 2.

I obtained my experience of sanitary plumbing in some of the largest cities in the country where the work is all done under the eye of a city inspector, and according to a city code which is most strict. I have often seen a whole job ordered ripped out by these sanitary inspectors, work that was done by men who thought they knew how. How would some of the work in B— fare under the supervision of these same inspectors? I for one think it is about time we had a city inspector of plumbing in our town, a man that knows his business from A to Z. In fact the State laws will compel it pretty soon.

The Sanitary Plumber is as important in a town as the doctor. The doctor cures disease, but the plumber prevents it.

My work is low in cost and high in efficiency. It will pay you in health and pocket to let your contracts here.

## Talk No. 3.

One great object of sanitary plumbing is the prevention of disease. In order to achieve this, the work has to be put in right, and every joint made perfectly tight. This is absolutely necessary, for if the joints are not tight, sewer gas can leak into the house and do great harm to the health of the occupants of the property.

If the plumbing is not installed right, you had much rather have the old outside closet with all its faults, than an unsanitary raft of stinking pipes in your house, giving off foul odors that cause all kinds of sickness.

I take several trips to the big cities every year in order to keep strictly up to date in all the latest methods of sanitary plumbing. That is the only way it can be done,

by getting right in touch with the actual work and keeping in touch with it.

New methods are being discovered every year, the chief object being to simplify the installation and yet ventilate the sewer pipe system perfectly.

I can give you just the same kind of work that the big cities have, and it will not cost you any more than the old unsatisfactory kind.

Call at my office any evening and get acquainted and talk over the plans for the plumbing in your new house.

## Talk No. 4.

What kind of Plumbing have you in your house? Are the floors perfectly free from moisture under all the fixtures? If not, there are leaks in the piping and the woodwork will rot away and cause expense.

# Sanitary Plumbing

## TALK NO. 1

¶ The fact that a man can put a thread on a piece of pipe and couple it up with a wrench does not make that man a *Sanitary Plumber* any more than the fact that a man can write with a pen makes him an expert bookkeeper. It takes years of study to become a *Sanitary Plumber*.

¶ It is about time the people of Bellevue realized the meaning of "Sanitary Plumbing."

¶ I am an acknowledged expert in my line and this is what you want to consider when giving out your work this coming season.

¶ The cheap job by inexperienced workmen means that in a year or two the cost of that job will be double the cost of a first class job installed by a first-class man who knows what real *Sanitary Plumbing* is.

¶ I stand back of every job of plumbing I install and I have the knowledge to install each job in a *sanitary* manner. I am no stranger in the town; my work here for the last five years speaks for itself.

¶ The cost of my work is always at the lowest figure for good work. My motto is "Low Cost, High Quality."

# Chas. H. Dawson

Formerly Sanitary Plumber with the late Johnston Hardware Company  
Phone FH-46 WRIGHT BLOCK, BELLEVUE, OHIO.

One of the Advertisements in Bellevue Newspapers.

Have you a kitchen sink with a cupboard built all round it? If so, that cupboard is just the best breeding place for all kinds of filthy disease germs. Take that cupboard down and throw it away and put your sink on brackets. When you do take it down, you will be disgusted and wonder how you could live in a nice house and have so much dirt right under your nose all the time. But then, you could not see it, the dirt was in the crevices between the boards and between the woodwork and the sink. Take away a single board and convince yourself.

Does a foul odor come up the trap attached to the sink? If so, it is not properly vented, or maybe there is no trap



at all and that opening leads right down to the sewer and the cesspool. You will hardly think that possible, but it may be so. I have fixed several such jobs in the last few months.

It will pay you to let me overhaul your Plumbing and put everything in shape. I can tell you what is wrong after a few minutes' examination.

All my work is done at a reasonable charge, and all work is guaranteed, not by a novice, but by an expert.

Call at the office any evening and talk the matter over with me.

#### Talk No. 5.

Do you often smell a sewer gas kind of odor in your Bath room? This is very often caused by the lavatory bowl, the trap of which is not revented or back-vented, as some Plumbers call it.

By re-vent I mean an inch, or inch and a quarter pipe, connected to the top of the lavatory trap and running into the vent pipe or main vent which goes to the roof of the house. Sometimes it is connected in the wall out of sight; but if the water goes out of the trap and lets the smell into the room, the extra vent or circulating pipe is not there.

The trap of the lavatory may not be vented; this may be noticed when the bathtub is being emptied to the sewer, or the toilet being flushed, then the suction from the swiftly flowing water draws the water seal out of the trap underneath the Lavatory, thereby breaking the seal and making a direct connection with the sewer and cesspool. Pretty nice thought, isn't it? Examine your plumbing and make sure your lavatory does not do this. There are a number of lavatories in town that do this same thing. I can stop this nuisance if you will ask me to.

All work intrusted to me will be done as quickly as possible and with as little muss and dirt as possible, at reasonable prices.

#### Talk No. 6.

Does the vent pipe that goes up through the roof, run all the way up to the outside of the roof, four inches wide; that is, the full width of the sewer pipe that runs from the bathroom to the cellar?

Or is it just a little two inch pipe that comes up outside of your roof? If so, it is not large enough to properly ventilate the large sewer pipes in the house and cellar.

Or maybe the vent pipe does not extend to the roof but ends in the attic, belching forth its foul odors into the attic, to be carried all over the house. Or, again, the vent pipe may be run into the chimney, so that in the summer when the chimney is damp, there may be a down draft caused, and so turn all the nasty sewer air into the house that way, for you and your family to breathe. Don't you fancy that kind of highly perfumed atmosphere? Some of you have it. I have seen this very thing right here in B——.

Again, speaking of the vent that ends in a small two inch pipe on the roof, this small pipe is very easily stopped with hoar frost in severe weather; then every trap in the house is liable to syphon and belch forth its vile odors. Look into these matters. It does not take an expert to find the smells, but it does take a clever Plumber to apply the remedy. All information will be cheerfully given and remodeling done at the lowest possible cost.

#### Talk No. 7.

I want the good people of B—— to understand the difference between a Tinner and Plumber.

A Tinner is a man who puts tin roofs, tin cutters and

conductor pipe on your houses, and fixes the holes in your tin pots and kettles and pans. I saw such a man put up a vent pipe from a sewer in the basement to the top of the house, with tin pipe; instead of using cast iron soil pipe and making the joints with boiling hot lead as they ought to be.

In a very short time the gases in that sewer will eat holes in the tin pipe and then the owner can look out for sewer gas and sickness.

A plumber makes a heavy round joint on lead pipe with a ladle full of red hot solder and a wiping cloth. This joint will never give way. A tinner makes this same joint with a solder iron and the joint is liable to give way with the slightest strain.

Then again a Tinner knows nothing about Re-venting and Sanitary Plumbing.

When you have a new job of plumbing installed, or an old job overhauled, be sure it is a capable Plumber that you employ to do the work, not a Tinner, with no experience in Sanitary Plumbing work.

Or, you may be another of those who throw their money away on a wretched unsanitary job and then have it torn out again in a little while.

If you get your work done at my shop you will have it done right the first time and no experimenting.

It costs no more to do it right than wrong.

#### Talk No. 8.

Now, about the cellar work and the tile sewer, cellar drains and openings should be properly trapped and the traps kept clean and full of water.

If the cellar soil pipe goes out to the sewer through the side of the basement wall, it should be carried right out of the wall with iron pipe for three or four feet, making the joint with the tile running to the sewer or sink-hole or cesspool with good cement.

All sewer tiles from the house to the main sewer or cesspool should have their joints thoroughly cemented; otherwise the sewage will seep out on its way and infect your garden, which isn't pleasant.

A cesspool should be at least fifty feet from the dwelling, because there is bound to be some odor from it in the hot summer months. The state plumbing code calls for one hundred feet.

I trust these remarks will be understood. I have tried to make them as clear as possible, knowing that the readers are not plumbers.

You can be quite confident that any contracts you favor me with will be installed in a perfect manner.

---

The annual convention and election of officers of the Massachusetts State Association of Master Plumbers will be held at the Hayward Assembly Rooms, Boston, on Wednesday, April 9. On the evening previous the annual dinner of the organization will be held in Boston. A committee appointed by President James S. Cassedy is making arrangements for the dinner and will announce details later.

---



---

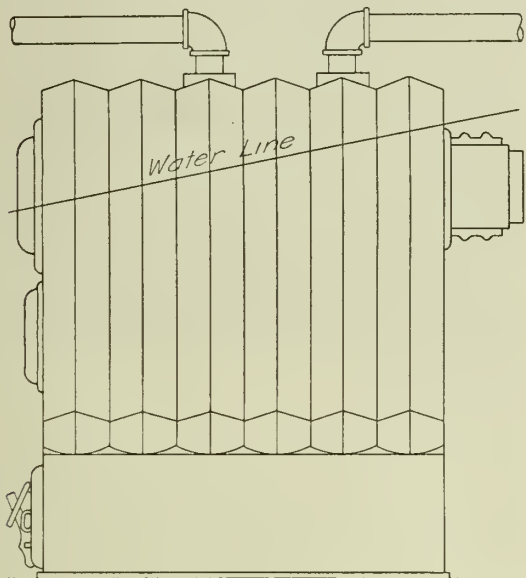
An elderly gentleman having recently moved to the city and having disposed of his farm by trading it for a modern home entered a plumbing shop, and asked the proprietor if he could send a plumber to his house to disconnect his bath tub, and incidentally if he would take the tub off his hands. The M. P. explained that it was a new tub just recently installed, and asked his reasons for having it removed. The Old Gent said, "Well you know we haven't any children so we don't need a tub."

# Questions and Answers

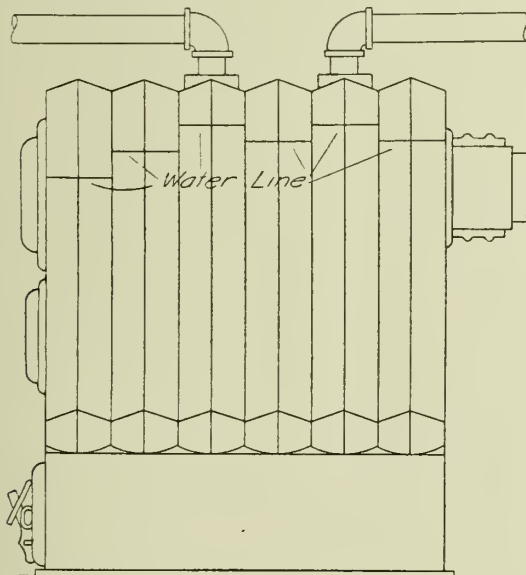


## CHANGING WATER LINE IN STEAM BOILERS.

Editor "Domestic Engineering":—I have noticed in some of the trade papers articles about the uneven water line in the long section type of sectional boilers. These writers speak of water being high in the back of the boiler when a good fire is burning. This is about the way the water line appears to them.



And this is the way the boiler looks when the water in the glass begins to lower.



Each section in this case has a different water line. If the opening was on the first section to the front of the boiler then the glass would show plenty of water, even though the sections farthest removed from the

openings in the top of the boiler would be below the ground of the sectional boiler.

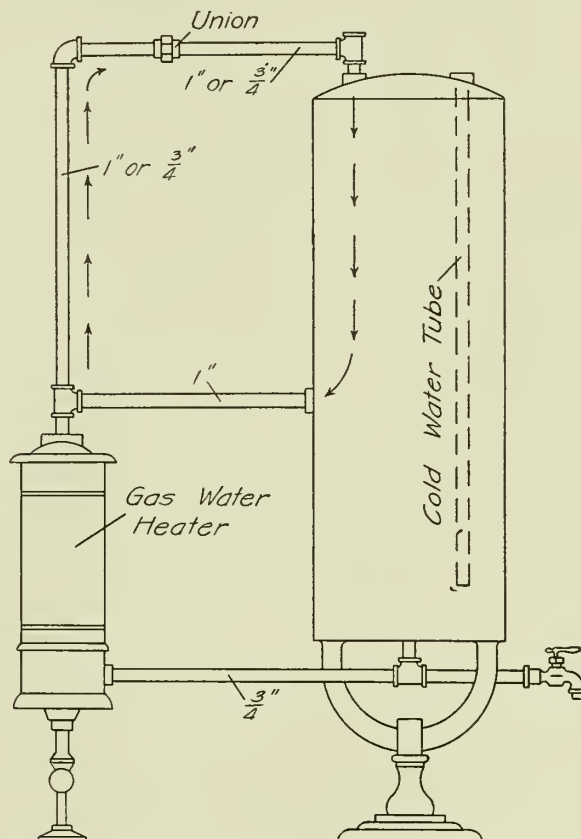
I believe in using all of the openings in the top of a steam boiler. This will tend to even up the flow of steam from the boiler. I would then connect the return to the boiler on both sides instead of returning it at one corner. This, to my mind, would make the circulation through the boiler much better.

I have often stopped the nervous water line in boilers by putting in a pipe connection from the top of the boiler where I found a plug, running the pipe into a supply main about two-thirds of the way around the cellar and back to the boiler, the pipe size to be one size smaller than where it is tapped into the main.

The failure to ream pipe ends causes a lot of trouble in the water line of boilers. Every pipe end in a main is like an ejector; the steam passing the end tends to condense and form a vacuum at the return to the boiler, which causes a difference in your false water line in the return.—W. H. Heyworth, Green Bay, Wis.

## ANOTHER WAY OF CONNECTING A RANGE BOILER.

Editor "Domestic Engineering":—The drawing herewith outlines a style of connection for use between a range boiler and a non-automatic gas water heater, which I have installed on six different jobs in replacing old boilers. Owners claim they get more hot water in less time than when there was only a single connection either at the side or top. Others claim that it does not and is merely a scheme to elaborate on the mechanical effect or in other



words, throw dust in the eyes of the purchasing public. If the latter is true, enchantment seems to work successfully between the range boiler and heater as well as between the plumber and his customer. Fittings A and



B can be in reverse position according to the height of the ceiling or the convenience in connections. I always arrange to have the anti-siphon hole in the top and turned away from the hot water outlet.—Seg.

#### SUGGESTION FOR DEAD AIR SPACE.

One of our subscribers makes a suggestion that might with good reason be applied to a great many residences, if the matter is taken up in time. It is at least worthy of consideration. Here is what he says:

"In all frame buildings the space under the bathroom floor should be practically a dead air space. To obtain this result, at the ends of the joists abutting the weather boarding and at, or just beyond the partition of the bathroom, there should be boards nailed between the joists, which will fit closely between the floor and the ceiling level. These will prevent the circulation of cold air, which is bound to enter under warped weather boarding and which causes piping and traps under the floor to freeze, and it causes the resultant deluge when the temperature rises.

"This suggestion refers only to houses where the clap-board, without building paper, is nailed to the frame work. Many homes are now built, for the sake of economy (?), with the weather boarding as the outside protection, instead of using shiplap or rough diagonally laid weather boarding, felt paper, then outside weather boarding.

"It would be good business for the plumbers to take this matter up with the owners and contractors before such a house is constructed, as it will be of a great deal of benefit when the weather gets down to dangerously cold temperatures. The writer has made it a point to take such precaution in all new buildings for which he is doing plumbing, and where he has had occasion to make repairs in bathrooms, so provided, he has called this matter to the attention of the owner so that he would know where the trouble was. The owner is usually asked to notice that a strong draft comes up from this space, which should be kept free from the chance of freezing. The suggestion is then offered which some owners adopt and others do not. However, in justice to the plumber who has installed the job, this matter should be called to the attention of any one who is doing repair work, so that no blame will attach to any one to whom it does not rightly belong.

"It is often found that new houses are built in exposed places and are on the river front. Several in which the writer has installed work are in a location where they are banked in the distance by high hills, which increase the wind pressure in the winter along the river. Houses that are built bordering on the Great Lakes are usually tested to the limit for their cold-resisting qualities, and where tar paper or shiplap is not used under the weather boarding, the danger of the plumbing freezing is very great.

"Weather boarding for a space of twelve feet in height will permit a considerable volume of cold air to circulate around under the floors unless something is done to stop this circulation near the piping and plumbing fixtures.

"Would it not be a good plan to have inserted in the plumbing regulations a clause requiring a dead air space under all bathroom floors in frame buildings, this space preferably to be filled with mineral wool or some other material that is not inflammable?" No sawdust should be used or anything that will encourage fire.

"Fire insurance companies are in favor of making as much dead air space as possible in frame buildings, for it is the small drafts that fan the flames, starting under the doors and in partitions.—A Pennsylvania Plumber.

#### A FIRM OF ENERGETIC PLUMBERS.

One of the enterprising plumbing concerns in Omaha, Neb., is that of the Dundee Plumbing Co., 3918 Farnam Street. The accompanying picture shows the building recently erected by this company for its office and display



The Establishment of the Dundee Plumbing Co., at Omaha, Neb.

room, with Charles Nelson standing at the left and Walter Stewart at the right, in doorway. This firm has been established only about two years, and has in that time built up a very successful business.

Warwick, N. Y.—James B. Randall has secured contract to install a heating plant in the Odd Fellows building on Main Street.

Fremont, Neb.—The Sanitary Plumbing Co. has opened an up-to-date establishment at 519 North Park avenue. A. B. Bugbee is manager of the new company.

Watertown, Conn.—M. J. Daly & Sons, Inc., has secured the contract for plumbing in the office building being erected at Meadow & Grand Streets for the American Brass Co.

Los Angeles, Cal.—Final plans are being completed by Parkinson & Bergstrom, architects, for a public comfort station to be constructed in the triangle at Ninth, Main and Spring Streets, at a cost of \$10,000.

Princeton, Ind.—Ed. Brunner, who is building up a most excellent business in implements, engines and other equipment for the farm, has decided to work out of the implement line and is devoting considerable time to his plumbing business. He states that he has already put in several jobs of good size and is figuring on several others.

Ithaca, N. Y.—P. M. Donorue has the contract for the installation of the plumbing and heating work in an eight-apartment building on Cornell Heights for E. G. Wyshoff.

Canandaigua, N. Y.—Arthur P. Sterling has secured the contract to install plumbing and hot water heating in a new structure on the country estate of Mrs. F. F. Thompson here. He recently completed in the residence on this estate an installation of nineteen bathrooms and a hot water heating plant taking 3,900 feet of radiation.

# Little Sidelights on Men in the Trade

He's Dutch, But Looks Irish

JACOB G. Weber, of Chicago — you know the man, do you not? If not, why not? You would not meekly confess that you have not the pleasure of Mr. Weber's jovial acquaintance or friendship.

Jacob—or rather, Jake—which is the fraternal pronunciation of his Christian name, is a big man. He tips the scales at pretty nigh two hundred and fifty pounds, and he is proud of it. Why shouldn't he be? They tell us that good things come in small packages, but this time-worn truism is fallacious. It has become stale, weak and wabbly. In contemplating Mr. Weber and his crop of adipose tissue, the keen observer must of necessity agree that good things do come in big packages.

Wrapped up in that ro-tund, portly figure of his, you find geniality, congeniality, joviality, and conviviality. In other words he is a mighty fine fellow and a man among men. What more could any sane critic ask? Nothing more, we insist, nothing more. Besides being big physically, Weber is big commercially—the direct result of being big in his craftsmanship, for his plumbing establishment is without doubt one of the biggest on Chicago's North Side.

Jake is a gentleman of the Teutonic persuasion, we are creditably informed. When he has appeared at any convention gatherings some master plumbers from other cities have run off with the idea that Weber was Irish. Why? Because Jake talks, walks and looks like an Irishman—and it may be added, can if necessary fight like one. Woe unto the man who would aspire to "put anything over" on Weber, for verily he would certainly land on that gentleman like a ton of hot bricks in rapid gravitation.

On the other hand no better friend can be owned by any man than Jake Weber. He stands up for his friends as a real friend should, sticks by them when they really need a friend—he's the real essence of loyalty.

If Weber was a real Hibernian he would demand and go in strong for corn beef and cabbage. Wouldn't he now? Sure Mike. Of course. No question about it. Jake is German, that's agreed, but he is also an American, and one of the best citizens Uncle Sam possesses. Weber doesn't go around singing "Hoch de Kaiser" or "Wacht am Rhein." He inflicts none of that noise on his brother craftsmen. He couldn't if he tried, because he has very probably forgotten both the air and the words of those patriotic effusions. He is thoroughly American in spirit and practice. He springs no sentimental stuff about Germany's army and navy being able to conquer both



the land and naval forces of America. He believes in Columbia, has faith in her great future, and he stands up for her like a man and an American.

If you didn't know Weber was a successful master plumber you might mistake him for something else besides an Irishman — you might easily take him for a judge. He certainly has the dignity and bearing of a good natured jurist. Maybe Jake missed his calling. Who knows now, who knows? At any rate he would have looked fine and dandy on the bench, and we believe his decisions would have been eminently fair and impartial. Little does the legal profession realize what it missed when Weber decided to make sanitary plumbing his life's work. But fate spoke to Jake, so let it be, let well enough alone.

Although Mr. Weber might have revealed in the job of being a judge, it is no uncommon thing for Jake to hear himself addressed as a judge. Men will ever and anon drop into Weber's office and ask: "Is the judge in?" And then again other men will be more deferential, and will greet Jake with a "Good morning, governor." In view of all this, we ask—what's the use of being a real judge or a governor, when folks will persist in calling you by either or both of these titles if you have the big front and look the part? Eh, what do you say?

As an employer, Weber believes in the golden rule. No journeyman who works for him can say that he didn't get a square deal. Jake is exceedingly fair with his men, and if they are as fair with him as he is with them everything moves smoothly and nice. But the employee must be "on the square" with Weber. He will stand for no soldiering on the job, nor will he wink at botch methods or inefficiency in workmanship. A thing must be done right, if it is worth doing at all. Weber often inspects and supervises work under his charge, and when he declares a job is O. K. you may rest assured that it is so in every particular.

During the hot summer months Jake has been in the habit of giving a grand picnic to his little force of employes in office and shop. He has hired rigs of commodious size and has piled his loyal gang into them, and off they have driven to some nice place where buttercups and daisies flourish. Weber contends that he is about the only master plumber in the middle west who takes enough interest in his employes to give them an annual picnic and foot the expenses himself. Fine thing, Jake, fine thing. Keep the good work agoing. That's the way to make the force "sit up and take notice," and to say



to themselves: "Gee, but Weber is a great fellow to work for. He's all right, he is."

Mr. Weber has been on the job as an A-1 master plumber on the North Side for roundabout thirty-three years. At the age of fourteen he began his apprenticeship at the trade with Willems Bros., located just eighty feet from his present place of business. He served nine years as a journeyman before starting for himself. His shop and office are very efficiently managed and his display of plumbing and heating specialties is so tastefully arranged that it is positively bound to attract and fascinate the public eye. Jake runs an establishment that is ideal from every point of view. And that's what gets the business for him every crack out of the box.

Jacob likes work. He takes to it like a duck to water. And the more work there is, the better Jake likes it. Work to him is like a certain brand of pop-corn. It's a case of the more work he gets the more he wants. It has been darkly rumored in some quarters that Weber has the gall to take a vacation now and then. Now, he may be guilty of so grave an indiscretion. Quite possible, quite possible. It is only human, however, for a "livewire" like Jake, nearing the three score mark, to want a little spell of play at least once a year—for don't we all know that all work and no play would make Jake a dull boy? Yes, quite so, of course. Let him, who would contradict this observation, speak. Yes, let him speak.

## INSTALLATION OF SPRINKLERS IN BIG NEW YORK SKYSCRAPER.

### A Unique Hydraulic Engineering Feat.

**P**ROBABLY for the first time in the history of the world, automatic sprinklers have been installed in a building for the primary purpose of protecting valuable papers and records. This interesting installation was made by the General Fire Extinguisher Company in the Bankers Trust Building New York. Not only is the equipment interesting on account of the nature of the property it protects, but also because it is

installed at a height greater than sprinklers were ever before placed.

This equipment protects the pyramid noticed in our frontispiece, the floors from the 32d to the 37th inclusive being sprinklered. Here are the great vaults of the Bankers Trust Company and while in their construction they are fireproof, the officers realized that the important documents stored there were not. This unique action of protecting valuable papers by automatic sprinklers, we believe is but the fore-runner of other equipments of a similar nature.

The installation of the pipes and the placing of the heads follows the usual regulations for such work, as will be seen in the plan here printed. The interest centers more in the source of supply, as it is no small problem to maintain and continue a sufficient supply of water at a point around 500 feet above the surface level. The supply may be said to come from three separate sources. First, there are two 1,250 gallon, steel pressure tanks, one of which is located on the 32d floor and the other on the 37th floor. In the upper right hand corner of the plan given is shown a portion of the 32d story which contains one of the pressure tanks. There is also shown in the plan the riser which furnishes the supply from the surface level. These two pressure tanks will exert a pressure on the sprinklers of at least 75 pounds to the square inch.

The second source of water supply to the sprinkler system comes from the high pressure pumps of 250 gallons per minute capacity each, which are located in the sub-basement of the great structure and which take their supply directly from the city mains.

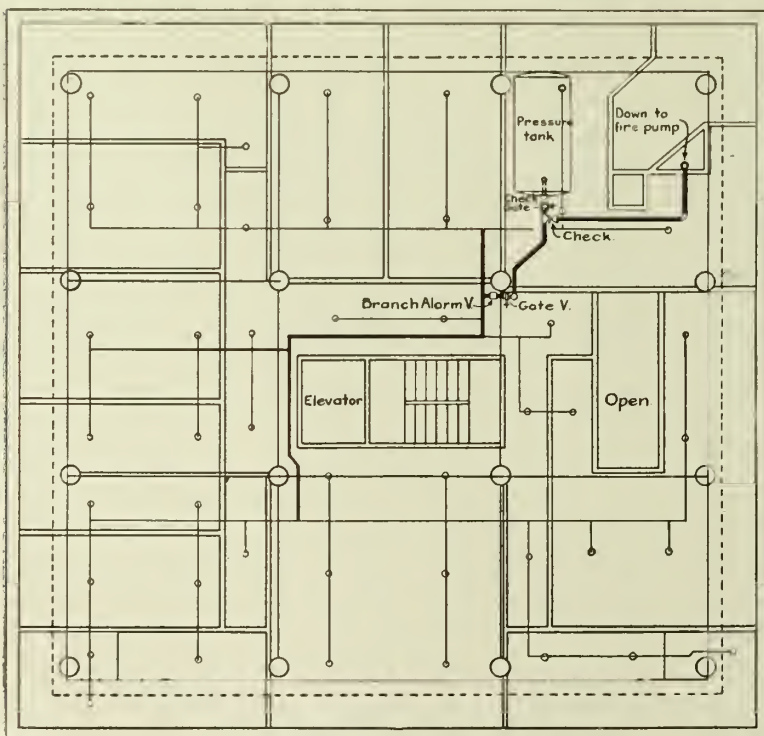
The third source of supply may be said to be an auxiliary emergency source and consists of a Siamese fire department steamer connection outside the building at the street level, to which the first department can connect a steamer and pump from an outside hydrant connection a sufficient volume of water to directly supply this lofty sprinkler system.

## COMFORT STATIONS DURING THE INAUGURATION.

Inspector of Plumbing McGonegal had a number of temporary public comfort stations in use at Washington during the inauguration, located at the following points: 17th and G streets, 15th and New York avenue, 15th and Pennsylvania avenue, 10th and D streets, 4½ street and Pennsylvania avenue, 3d and Pennsylvania avenue.

In addition to these, twelve smaller temporary stations were erected east of the Capitol for use on March 4 only. All of the rest were open eighteen hours a day during the inaugural period, from February 28 to March 6.

As a means of increasing the advantages of this service to the public he has adopted the international public comfort station placard, which consists of a green-colored circle inclosing a four-pointed orange-colored star, with black lettering. This design was placed on all of the public comfort stations, and smaller directory cards bearing the same design were placed at intervals of about two or three to the block along Pennsylvania avenue and about a block from the Avenue on all cross streets.



Plan of Sprinkler Installation.

# Kansas Plumbers Close Successful Meeting

The Annual Convention Was Held at Kansas City, Kansas,  
March 10 and 11, the Meeting Being Held in Odd Fellows Hall

**T**HE Twenty-second Annual Convention of the Kansas Master Plumbers' Association was held in Kansas City, Kan., March 10th and 11th, with the following officers in attendance: President A. P. Elder, Ottawa; Vice-president W. S. P. Gill, Hutchinson; Secretary E. D. Draper, Kansas City.

The delightful spring weather brought out a large attendance, and long before the meeting opened the delegates and ladies filled the hall. Headquarters were established in the Grund hotel and meetings were held in the Odd Fellows hall. A large banner, extending across the street, designated the meeting place.

he said that he had no complaint to make on their charges and work. He spoke of the plumbing that was installed two thousand years ago in Pompeii and how work in those days, was installed, the same as now, with lead pipe and joined in the same manner.

President Elder, in reply, stated that he was proud of the association and its membership and was glad to notice a number of civic improvements since the last meeting here, especially the new city hall and public comfort station. He said the work of the association should be along educational lines. Its recruits come from the ranks of the journeymen and they often need training along busi-



Group of Members and Guests at Kansas Convention, March 10 and 11.

When the meeting was called to order at 10:15 a. m., by State President Elder, about seventy-five delegates, their ladies and guests, were present, which, with the later arrivals, swelled the attendance to nearly one hundred.

Invocation was offered by the Rev. L. M. Denton, of Kansas City, after which President Elder introduced the mayor, Jas. E. Porter, who welcomed the delegates and guests to the cleanest city of its size in the country and one whose population is made up of the best men and women. He stated that he was glad that members brought their wives and sweethearts and spoke of the progress that women have made in the last few years. After telling a number of stories on the plumbers, he stated that often the public has the wrong impression of the plumber's profits.

Following the mayor, Judge M. J. Manning was introduced, and spoke in behalf of the Mercantile Club of Kansas City. He extended a welcome to the visitors and the use of the club rooms at any time during their stay in the city. Speaking from his own experience with plumbers,

ness lines. He spoke of the changes that have taken place in many of the Kansas shops; where once little attention was paid to show rooms, now attractive places are maintained.

After roll call by Secretary Draper, President Elder appointed the following committees:

Sergeant-at-Arms, Theo. L. Grindell, Kansas City.

Auditing Committee: C. A. Baker, Wichita; J. H. Wehe, Topeka; H. E. Hertner, Girard.

Resolutions: Carl Graeber, Lawrence; W. E. Fuller, Seneca; H. A. McGregor, Winfield.

G. H. Wentz, of Lincoln, Neb., president of the Nebraska association, was introduced by President Elder and spoke on the requirements of membership. He maintained that all should have confidence in each other and stated that he did not like the name "competitor." In many cases the competitor is looked upon with some degree of hatred. The association should bring men closer together and they should place confidence in each other, and all should work for a better grade of plumbing work



to protect the health of the community. He also spoke of the work being done in Nebraska along this line.

F. W. Barclay, of Beatrice, Neb., vice-president of the Nebraska association, was introduced and spoke on early plumbing in Nebraska and the progress that is being made. He hoped that Kansas would send delegates to the Nebraska convention, to be held in Omaha next year, as he believes there should be closer relations between these states.

Secretary C. L. Smith, of the Missouri state association, spoke on the conditions of association work in that state and progress that is being made toward the enactment of a state plumbing law.

Adolph Mueller, president of the H. Mueller Mfg. Co., Decatur, Ill., was next introduced and gave one of his characteristic talks on "Business." He dwelt on the fact that plumbers as a rule do not have as high a rating as the average business man and gave a number of statistics to prove his assertion. He also took up the problem of overhead expense, which in many cases is the stumbling block to success.

After announcement of an automobile ride for the ladies, adjournment was taken for lunch.

#### Monday Afternoon Session.

President Elder, in his report, after speaking of his trip to the National convention at Salt Lake City last summer,

fee to \$5.00, for a period of ninety days, that more members might be secured throughout the state.

#### Secretary's Report.

In his report, Secretary E. D. Draper spoke of the trials through which the association had passed during the year just closed. In spite of these discouragements, however, he was able to report eleven new members, as follows: Topeka, Thos. Heery; St. Mary's, Wm. Gebhard; Kansas City, G. W. Erickson, Lester Ray, Chas. Simmons, J. L. Berenzen, A. E. Griffis, B. J. Miller, E. Walton, G. A. Kinley, Theo. L. Grindle.

Secretary Draper read a number of papers and briefs bearing on the ouster suit.

Carl Graeber, of Lawrence, gave a talk on the figuring of profits, taking as an example the problem of figuring a profit of 20 per cent. He showed the fallacy of adding 20 per cent to the cost, and explained that the process of figuring percentage of profit should be based on the selling price. He also spoke of a new cost book on which he is working.

M. C. Enggas, of Kansas City, Mo., President Elder and Geo. W. Sutherin of Topeka, took part in the discussion that followed.

M. P. Connor, vice-president of the Missouri association, spoke on conditions in Kansas City, telling of the way they had increased the membership to 116, making that



H. A. Stamper of Vaile-Kimes Co., and C. L. Smith, Secretary Missouri Association.

B. A. Hungerford, of Pittsburgh Water Heater Co., and E. D. Draper, Secretary of Kansas Assn.

M. C. Enggas, of Kansas City, Mo., Assn., and C. L. Smith, Secretary Mo. Assn.

H. Ingham, of Fort Scott, C. A. Baker and A. L. Knott, Wichita.

Two Members "Taken In" At Kansas City.

dwelt on the action commenced by Attorney-General Dawson, alleging that the association was operating in defiance of the Kansas anti-trust law. At a meeting of the executive committee at Kansas City, Aug. 28th, it was decided to employ counsel and fight the case if necessary.

The fact that Mr. Elder was a candidate for state senator made the situation more complicated. On September 23rd a personal interview was secured with the attorney-general and Frank Ryan, a member of the public utility board. With Mr. Elder were E. D. Draper and Attorney G. R. Allen. After presenting a lengthy and complete list of the members with their commercial ratings, and after considerable argument, the attorney-general finally dropped the case.

Mr. Elder spoke of his successful efforts in collecting back dues from members and recommended dropping those who failed to pay up after sufficient opportunity had been given.

A revised plumbing law, which it was desired to have passed by the legislature, failed to come to a vote. On the other hand, an effort was made in the state senate to repeal the present law, but the repeal bill was killed by united action, led by Mr. Elder.

Mr. Elder recommended a reduction of the initiation

local the strongest in proportion to possible members in the country.

Secretary Draper read a letter from the Ladies' Auxiliary of the Kansas City, Mo., association, extending a welcome to the visiting ladies.

A letter from National President Frank J. Fee, of New York, was also read, in which he expressed regret at his inability to be present.

#### Social Events Monday Evening.

A reception was given at the home of Secretary E. D. Draper. The evening was spent with music and games. Mrs. Draper as a hostess was in her element. Refreshments were served and all who attended spent a very enjoyable evening.

A number of the delegates who did not attend the reception were entertained at a theater party given by the salesmen and manufacturers present. This was arranged by Howard C. Relda of Glauber Brass Mfg. Co.

#### Tuesday Morning Session.

President Elder, after asking for the reports of committees, found them not ready. He then requested that questions be placed in the question box. A number of questions were received relative to overhead expense.



H. A. Fairchild, Hiawatha, Wm. Kraemer, Marysville, W. C. Irons, of Peerless Selling Co., and H. C. Reida, of Glauber Brass Mfg. Co.



L. A. Bland and Adolph Mueller, of H. Mueller Mfg. Co.



F. W. Fein, Lawrence; G. E. States, Topeka; W. G. Espenlaub, Kansas City, and Geo. Sutherin, Topeka.



H. C. Reida at the Wheel of Fire Chief's Auto, with W. C. Irons as Marshall.

which were taken up in turn and discussed by the various members. One question asked was the cause of low prices and M. C. Enggas of Kansas City, Missouri, replied "The eagerness for work." After a long discussion along these lines, the president again asked for the report of the Auditing Committee.

The recommendation by President Elder that the initiation fee be reduced to \$5.00 for the fiscal year to allow all firms legitimately engaged in the plumbing business in the state to become members, was passed as a resolution.

A resolution was adopted in honor of a deceased member, A. F. Kropp, Winfield.

A discussion took place on the advisability of having a uniform state examination, which was referred to the secretary, to take up with the various cities.

Secretary C. L. Smith of the Missouri Association extended an invitation to Kansas members to visit the Missouri convention to be held in St. Louis next year.

Adjournment was taken at 11:55 and a photograph of delegates and guests taken in front of the Carnegie Library.

#### Tuesday Afternoon Session.

President Elder introduced Myron A. Waterman, representing the United Electric Company, who gave a description of the vacuum cleaning system and also an idea of the cost of installation. He stated that a great field is opening up for the plumber in this line.

Thos. P. Watts of Kansas City, Missouri, spoke on the theme of profit, and how to figure enough, illustrating his point by several stories.

President Elder received word from E. D. Hornbrook, past national president, that he would be unable to attend the meeting on account of a severe case of rheumatism. He sent greetings to members present.

M. P. Connor, first vice-president of the Missouri Association, spoke on association matters and advised members to forget the petty jealousies and all work together for the benefit of the whole organization. Mr. Sive-wright of the Kansas City, Missouri, association, also spoke and asked delegates to visit their meeting, which was to be held the same evening.

G. H. Wentz, president of the Nebraska association, suggested closer relations between the several states and asked that next year delegates attend the Omaha meeting. He stated that during the present meeting he had heard things that will help him in his work and that he will put in practice.

A motion that the incoming president and vice-president be elected delegates to the Nebraska, Iowa and Missouri meetings next year was carried.

#### Officers Elected.

The election of officers resulted in the reelection of the officers of 1912.

President, A. P. Elder, Ottawa; vice-president, W. S. P. Gill, Hutchinson; secretary, E. D. Draper, Kansas City; treasurer, F. H. Bowers, Emporia.

J. M. Simmons, of Wichita, was elected delegate to the National Convention at Philadelphia in June.

It was decided to hold the 1914 convention at Topeka.

#### Other Business.

H. Ingham, of Fort Scott, gave a report on the Salt Lake City convention.

#### Banquet Tuesday Evening.

At 6:30 o'clock the banquet was held in the Odd Fellows Hall, with one hundred members and guests in attendance. Mrs. E. D. Draper was chairman of the committee arranging the banquet and much credit is due for her work. The supper was served by the ladies of the Washington Avenue M. E. church.

Before entering the banquet hall each lady was presented with a bouquet of carnations by W. C. Irons, of the Peerless Selling Co.

President A. P. Elder acted as toastmaster. Invocation was offered by Rev. W. C. Hanson, Kansas City, Kan. After the last course talks were given by G. A. Wentz, J. M. Simmons, W. S. P. Gill and B. B. Gillett.

#### Meeting of Kansas City, Mo., Association.

Tuesday evening being the regular meeting night of the Kansas City, Mo., association, a number of delegates and guests accepted the invitation to visit their neighbors



B. F. Engler, Lester Ray, A. E. Griffis, F. Gouch, B. B. Gillett, all of Kansas City, Kansas.



Group of Ladies at Kansas Convention.



G. H. Wentz, Pres. of Lincoln, Neb., Assn., and F. W. Barclay, Vice-pres., Beatrice, Taken in Tow at Kansas City.



across the river. Several good blackboard talks were given, after which light refreshments were served in the shop of M. P. Connor, which is located near the meeting hall. A very delightful evening was spent by those who accepted the hospitality of the Missouri association.

#### Manufacturers Represented.

A display of Rapidac and self-closing brass goods was made by the H. Mueller Mfg. Co., in charge of Adolph Mueller, L. A. Bland and S. Thornton.

The Blake Specialty Co., of Rock Island, Ill., was represented by John Blake.

H. A. Stamper represented the Vaile-Kimes Co., Dayton, O.

The Glauber Brass Mfg. Co., of Cleveland, was represented by Howard C. Pelda.



President A. P. Elder, Ottawa, Kan.; F. W. Barclay, Beatrice, Neb., and G. H. Wentz, Lincoln, Neb.

W. C. Irons, of the Peerless Selling Co., Evansville, Ind., shook hands with the trade.

B. A. Hungerford, district sales manager of the Pittsburgh Water Heater Co., Pittsburgh, Pa., was present.

W. F. White, sales manager of the Ruud Mfg. Co., of Pittsburgh, represented his company.

Harry Rose, of the Western Specialty Co., Kansas City, was present.

F. Edson, of the International Heater Co., Utica, N. Y., distributed a neat calendar and housewife's guide.

#### Delegates Present.

Chanute—W. H. Mallory. Fort Scott—H. Ingham.  
Emporia—C. W. Barnap. Hiawatha—H. A. Fairchild.  
Girard—H. E. Hertner, W. S. Hitch.  
Hutchinson—H. Hickerson, Stevens Bros., Polly & Welchons.  
Kansas City—J. L. Berenzen, Geo. J. Deffner, E. D. Draper,  
B. F. Engler, G. W. Erickson, W. C. Espenlaub, J. K. Feli,



Exhibit of H. Mueller Mfg. Co., at Kansas Convention.

B. B. Gillett, G. E. Gilhaus, N. Gollesburen, F. W. Gouch, A. E. Guffes, Theo. L. Grindle, C. E. Harris, G. A. Kinley, E. J. McDonald, B. J. Miller, J. N. Miller, Nat Nelson, M. H. Peterson, Lester Roy, Chas. Simmons, E. Walton.

Lawrence—Carl Graeber, Kennedy Bros., Arthur Olson, F. W. Fein.

Lindsburg—J. A. Holmburg.

Marysville—Wm. Kraemer.

Ottawa—A. P. Elder.

Pittsburg—J. H. Beasley, Hartzell & Shout.

Olathe—W. E. Christie. St. Marys—Wm. Gebhard.

Seneca—W. E. Fuller. Parsons—McCaffery & Williams.

Topeka—C. F. Gustafson, States Bros., H. E. Shafer, G. W. Sutherin.

Wichita—C. A. Baker, F. Dermody, Frank Hoff, J. C. Kerr, A. L. Knott, R. R. Moore, N. M. O'Dell, J. M. Simmons, C. A. Preston, W. H. Warren, E. Bulkley, J. Lamsdown.

Winfield—Dixon McCon, H. A. McGregor, C. B. Hamilton.

#### DEDICATION OF NEW SANITARY DRINKING FOUNTAIN AT KANSAS CITY.

Last Sunday afternoon a large crowd assembled at the northwest corner of Twelfth Street and Grand Avenue, Kansas City, Mo., to witness the impressive ceremony connected with the dedication of the first public sanitary drinking fountain erected in the business section of Kansas City.



This ornamental fountain was presented to the city by the Women's Auxiliary to the Association of Master Plumbers. It is of gilded iron, with a large copper bowl, and is equipped with the latest sanitary device. To obtain a drink one has to place the foot on a pedal at the base of the pedestal and the water bubbles up, so that one's lips are not brought in contact with the bowl.

The Rev. George Newell, pastor of the Third Presbyterian Church, delivered the invocation, and Rev. Dr. Frank G. Smith, pastor of the First Congregational Church, in a very interesting address, dedicated the fountain to the people of Kansas City, "who have built up a magnificent city on these hills."

Dr. Frank Hall followed with a few well-chosen words, after which President Weeks of the Humane Society spoke at some length.

Mrs. E. D. Hornbrook, chairman of the committee, was mistress of ceremonies, and personally presented the fountain to the city, hoping

to induce Kansas City "to follow the example of other progressive cities by placing a fountain on each corner in the congested sections."

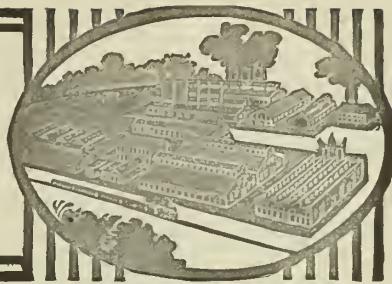
Much credit is due to the members of the committee for their earnest efforts to promote the welfare and comfort of the community by this first step toward the establishment of better facilities for the care of mankind.

Upper Picture: W. H. Hanson, President Kansas City Local Association.

Lower Picture: Mrs. E. D. Hornbrook at Left of Fountain.



## News of Interest Among the Wholesalers and Manufacturers



### INCREASED ITS CAPITAL STOCK.

The Crescent Brass Co., of Cleveland, O., has increased its capital stock from \$10,000 to \$35,000.

### MOVES FROM CLEVELAND TO NEW YORK CITY.

The Elgin Brass Co., of Cleveland, Ohio, is moving its headquarters to 94 John street, New York City, where the company expects to be installed by April 1st.

### INDIANA SUPPLY CO. INCORPORATES AND INCREASES CAPITAL STOCK.

The Indiana Supply Co., of Indianapolis, Ind., has incorporated its business with a capital of \$150,000 to deal in plumbing and heating supplies. The incorporators are: H. M. Gilchrist, J. M. Gilchrist and F. V. Thomas.

### WILL MANUFACTURE STEAM BOILERS.

The Michael F. Kennen Patent Steam Boiler Co., of Cincinnati, O., has been incorporated with a capital of \$25,000, to engage in the manufacture of steam boilers. The company was incorporated by Michael Kennen and others.

### ALBANY JOBBERS IN NEW QUARTERS.

Hoy & Co., jobbers of plumbing supplies, Albany, N. Y., have recently moved into their new quarters on Columbus street, in that city. The building is four stories in height and is ideally constructed for the needs of a plumbing supply business. This company was for many years located on Green street, near State.

### GENERAL OFFICES AND SHOW ROOMS MOVED.

The Syracuse Heater Co., Syracuse, N. Y., has moved its general offices and display rooms from 249 W. Fayette street to 227 Walton street, in that city. This company has recently acquired the heating specialty business of the Rice-VanAuken Corporation, of Syracuse, and will henceforth conduct it as a department of the Syracuse Heater Co.

### KRETSCHMER MFG. CO. NOW IN NEW BUSINESS HOME.

The Kretschmer Mfg. Co., of Dubuque, Iowa, has moved into its new building at Ninth and Washington Streets in that city. This new business home consists of a three-story building with basement, of concrete construction, 80x100 ft., admirably adapted to the manufacturing and jobbing of plumbing supplies. Adjacent to this building the company is just now erecting a brass foundry for its own use.

### CENTRAL TUBE CO. MOVES ITS OFFICES.

The officers of the Central Tube Co., of Pittsburgh, Pa., will, after March 24th, be found on the eighteenth floor of the First National Bank building, Pittsburgh, Pa. The demand for additional room has made it necessary to secure the entire floor, where they will have adequate facilities to welcome their friends as well as to transact an increasing business.

### PRESSED METAL RADIATOR CO. ELECTS NEW OFFICERS.

The Pressed Metal Radiator Co., of Pittsburgh, Pa., elected the following directors at a recent meeting: A. W. Mellow, F. C. Perkins, R. B. Mellow, John W. Garland, H. A. Phillips, John K. Frye, H. C. Shaw.

H. C. Shaw was elected treasurer at A. M. Pierson's resignation. The officers of the company are: John K. Frye, president; F. C. Perkins, vice-president; A. M. Pierson, secretary; H. C. Shaw, treasurer.

### LIEN LAW CHANGES PROPOSED IN NEW YORK.

The Eastern Supply Association has sent to its New York members the following communication regarding bills now pending before the state legislature:

"We call your attention to a bill introduced in the Senate at Albany by Senator Duhamel, January 27th, 1913, No. 440, introductory No. 419, which is for the purpose of amending the lien law. In the opinion of members if said amendments become a law the effect will be to nullify, to a great extent, the mechanics' lien law and deprive all material men of the limited benefits they now enjoy thereunder.

"Your attention is also called to a bill introduced in the Assembly at Albany, known as bill No. 238, and introduced as bill No. 235, which bill is designed to amend the labor law in relation to materials and labor used in and upon public works, such as public schools, sewers, state buildings, etc.

"The law now sought to be passed relates to the question of wages, hours of labor, etc., and is so stringent in its provisions that, in the judgment of well informed persons, it would have the effect of stopping the erection of all public buildings.

"We would suggest that you immediately get in touch with your assemblyman and senator, protesting against the passage of these bills, until an opportunity has been had to carefully study them. In matters of such vital importance to the material trade, no hasty action should, in our judgment, be taken by our representatives at Albany, and we trust you will see the necessity of immediately placing your views before them.

"Respectfully submitted,  
"Frank S. Hanley, Sec'y."



### LEADER IRON WORKS WILL OPEN CHICAGO SHOWROOM.

The Leader Iron Works of Decatur, Ill., has leased the ground floor room at 310 South Dearborn Street, in the Monadnock Block and will at once fit it up as a display room for their line of water systems and pumping machinery. The trade will regret to hear of the decision of the Chicago manager, R. C. Burmood, to embark in business for himself in another line. W. V. Pettit, who has been Illinois representative for the company, will be the new manager.

### EXHIBIT OF TRENTON POTTERIES CO. AT CLAY SHOW.

Products of the work of the Trenton Potteries Co., of Trenton, N. J., were a feature of the Clay Products Exposition, which has just closed at the Chicago Coliseum. The illustration herewith gives an idea of the display.



The Trenton Potteries Co.'s Exhibit at the Clay Show.

which was attractively arranged in a booth built up of brick. Many visitors were not aware that some plumbing goods were really the products of the pottery art, and their education to this fact was well worth the effort.

### CHANGES IN THE AHRENS & OTT MFG. CO.

A number of important changes have been made in the personnel of the officers of the Ahrens & Ott Manufacturing Company, of Louisville, Ky. Chief of these changes were the appointment of J. W. Oliver to the general management of the Main street house of the company and the retirement of Albin Wunderlich from active duty as secretary of the corporation. Mr. Oliver's promotion takes effect at once and Mr. Wunderlich will leave his desk April 1. J. W. Oliver has been connected with the Ahrens & Ott Manufacturing Co. for nearly ten years past and for some time has been assistant to Samuel H. Moon, general manager of the concern. By virtue of his recent appointment, Mr. Oliver takes charge of the local quarters of the concern, becoming a district manager, while Mr. Moon retains his general executive interest as supervisor of the Ahrens & Ott factories and salesrooms in Louisville and branches in New Orleans, La.; Houston, Texas; Nashville, Tenn., and Fort Worth, Texas. Secretary Wunderlich, of this company, has been in its service

for thirty-five years past, since 1878. During that time he has risen steadily and has been secretary of the corporation, the right-hand man of President Theodore Ahrens, for a decade or more. He will retain his office as secretary and his position in the directorate of the Ahrens & Ott Manufacturing Company, although retired from active business. Mr. Wunderlich is a thirty-second degree Mason, a leading Shriner as a member of Kosair Temple, Louisville, and during his association with the Ahrens & Ott interests has become a widely known Louisville business man. A testimonial dinner was tendered Mr. Wunderlich by the Ahrens & Ott Manufacturing Company, March 1, in honor of his long service in the secretaryship. Theodore Ahrens, president of the company, presided as toastmaster at the dinner, and good cheer and excellent oratory reigned supreme for several hours. Mr. Wunderlich was then presented with a beautiful gold watch in token of his company's appreciation of his efforts of such long standing. Those who attended the dinner at the Seelbach were: Mr. Ahrens, Samuel H. Moon, Theodore O'Toole, Henry Knapp, E. J. Wesche, W. Wunderlich, J. C. Klein, Edward Quest, J. W. Oliver, F. J. Riebel, Fred Sauer, H. L. Ott, H. Wunderlich, Theodore Mueller.

### MARCH MEETING OF THE ILLINOIS CHAPTER OF A. S. OF H. & V. E.

At Vogelsang's restaurant in Chicago, on the evening of Monday, March 10th, was held the regular March meeting of the Illinois Chapter. The usual dinner was served at 6:30 o'clock and the regular routine business opened at 7:30. The principal speaker was F. W. Shepherd, his subject being "Ventilation; progress of the tests at the experimental room at the Chicago Normal School."

Mr. Shepherd opened by saying that the ventilation of a given room involves supply to all its occupants of an adequate amount of clean air, cool and humid to such a degree as will best conduce to their comfort and good health.

Continuing, he spoke of the keen interest that had been taken in the experimental work by prominent heating and ventilating engineers. He stated that he was a resident of the Normal college and that everything done therein was under the supervision of the Chicago Commission on Ventilation.

He spoke on the quantity of air injected into the experimental room by the plenum system and about its distribution. It was found that this system furnished sufficient air but did not distribute it properly.

Under the system worked in the experimental room, the air is brought into the room from under a false floor and then drawn out through a false ceiling. Ordinary galvanized pipes, 3 in. in diameter, were stated to have been sunk through the floor, and these delivered sufficient air under each desk in the immediate vicinity of the pupil.

The next difficulty was in combating the window chill. The room contained three windows. The northwest window was warmed by a steam pipe, 3 in. in diameter, the middle window with a 4 in. pipe and the south was left unwarmed. It was found that neither were successful in breaking up the window chill.

A number of charts were shown, giving the various temperatures taken in the room during February, 1912. These temperatures were determined by placing three thermometers on a vertical support. The first was placed six inches below the false ceiling, the second about the height of the breathing zone of children when standing, and the third six inches from the floor. The following

table shows the direction of the wind, and underneath that the temperature given is the outside temperature; the readings below are those taken from the thermometer in their relative positions.

E	WNW	NNW	NW
26	28	17	13
65-63	63-61	65-64	62-61
67-63.5	65-61	70-62	63-59
63-63	57-55	61-55	56-54

Mr. Shepherd then spoke of the considerable time spent in the making of the chart designated as the "comfort zone" chart. This chart showed the records of 150 readings that had been taken in the experimental room. The comfort zone was found to be existent when the temperature was between 63 and 65 degrees, with a humidity of 56. They also found that the zone still remained comfortable when the temperature got higher and the humidity lower.

The system of dividing the air is now under serious consideration. A scheme is now being experimented on whereby the air forced into the room for heating purposes will not be breathed. It is proposed to have a sheet of hot air all around the room, and by this means the pupils' lower extremities will be carefully warmed, and will also eliminate the window chill.

This scheme has been stated to be practicable by architects and heating and ventilating experts. Mr. Shepherd closed by saying "The central truth in ventilation is the fact that currents and disturbances are very easily produced in atmospheric air. This fact becomes oracular inasmuch as it explains equally well why good ventilation is both easy of accomplishment and difficult to obtain."

Mr. Shepherd was given a rising vote of thanks for his address. An interesting discussion on the topic of the evening then followed and many suggestions were given to Mr. Shepherd.

SAYS ST. PAUL PAPERS DID NOT QUOTE HIM CORRECTLY.

"Domestic Engineering," Chicago, Ill.  
"Gentlemen: I note in your issue of Feb. 22nd copy of comment taken from St. Paul newspapers, regarding the so-called Bath Tub Trust. The St. Paul newspaper reporter evidently misunderstood my statement regarding reduction in cost to the consumer. In fairness to all manufacturers and to the public, I want to state that what I did say to the reporter was that if this combination or trust had gone through it would undoubtedly have meant by this time an advance in cost to the consumer of from 20 per cent to 40 per cent.  
"If you will correct this in your next issue I am sure it will be appreciated by all concerned.  
J. L. Sullwold."

AMERICAN BLOWER COMPANY'S ANNUAL CONVENTION.

One of the most important features of the American Blower Company's recent annual convention, at Detroit, was the bowling tournament on Allen's Alleys on Michigan Avenue. In this event the team representing the home office, was pitted against a team representing the various branch offices.  
James Inglis, president of the company, offered a handsome cup to the winning team, a cut of which is reproduced herewith, which was carried off by the branch

office team. There have been many close and exciting contests at previous conventions, but never in the history of the "Sirocco" organization has there been any to equal this year's event. When the battle was over and the smoke cleared away it was found that only seven pins separated the two teams. This score is given below:



Trophy in Bowling Contest of American Blower Co.

Branch Office Team.		Home Team.	
J. F. G. Miller, St. Louis.		I. B. Coe, Detroit.	
C. T. Morse, Montreal.		J. H. O'Brien, Detroit.	
H. W. Pfeffer, Philadelphia.		Tom Chester, Detroit.	
E. M. Lloyd, New York.		E. H. Vitalius, Detroit.	
R. B. Bedford, New York.		E. H. Vitalius, Detroit.	
Arthur Ritter (Capt.), New York		H. Ebel, (Capt.), Detroit.	
Branch Offices		Detroit Office	
First game .....	621	621	646
Second game .....	698	698	690
Third game .....	744	744	720
	2063		2056

Benj. Adams of Philadelphia acted as manager for the branch office team, whereas Harry Ebel of Detroit acted in the dual capacity of captain and manager for the home office team.

ATTRACTIVE CALENDAR OF GREAT WESTERN POTTERY CO.

The Great Western Pottery Co., of Kokomo, Ind., mailed to the trade a most attractive calendar for the month of March, depicting a sunset scene on the River Tiber and showing on the reverse side one of their vitreous china drinking fountains. This makes an effective advertisement.

SENDS OUT UNIQUE ADVANCE CARD.

R. D. Pierce, traveling for M. Glauber & Co., is mailing an advance card to his trade that suggests in an illustrated form the necessity of being prompt with the orders "for I've got to catch a train." His pockets are filled with miniature supplies and his hand is on his order book. Mr. Pierce's friends will hardly recognize his portrait, however, from the card.



# Personal Mention

E. E. Baker and J. P. Dugger, president and secretary, respectively, of the Kewanee Boiler Co., Kewanee, Ill., are spending a fortnight at Hot Springs, Ark.

F. C. La Fleur, who has been traveling for the Potteries Selling Co., Trenton, N. J., for several years, has accepted a similar position with the Great Western Pottery Co., of Kokomo, Ind.

E. G. Wagner, president of Charles Millar & Son Co., Utica, N. Y., is spending a few weeks at St. Augustine, Fla.

F. J. Baker, president of the Geo. H. Tay Co., San Francisco, Cal., is on a visit East and was registered in New York City last week.

Walter P. Deutsch, of the Empire Brass Manufacturing Co., Cleveland, Ohio, is making a special trip through the eastern states in the interest of his company.

A. S. Davis, sales manager of the Asbestine Soapstone Company, called on the New York state trade last week. His friends are glad to see that he is rapidly returning to his former good health.

Fred J. Offerman, of South Omaha, Neb., was a Chicago visitor this week and favored "Domestic Engineering" with a call. His contracting business is opening up in good shape, he says.

E. M. Clark, San Francisco, Cal., has been appointed manager of the New York Branch of the U. S. Radiator Corporation. This company will occupy half of the street floor in the Architects' building, Park Avenue and 40th Street, on April 1st.

S. P. Schoenberger, familiarly known to the plumbing trade through his long association with the United Brass Manufacturing Co., Cleveland, Ohio, is returning home from a special eastern trip, made in the interests of that company.

G. E. Coney, sales manager for the Columbus Brass Co., Columbus, Ohio, met with a rather painful accident while boarding a street car a few days ago. It is thought that ice on the step of the car caused Mr. Coney to lose his footing and fall, fracturing his knee-cap.

Walter F. Krans, who conducts an up-to-date plumbing establishment at 33 Market Street, Galva, Ill., was a visitor at the office of "Domestic Engineering" this week. He reports business opening up in good shape for the spring and expects to do a much larger volume of work than last year.

The many friends of George W. Fisher, vice-president of the Atlas Brass Co., Cleveland, Ohio, will, no doubt, be interested to hear that he was married in that city on February 18. Mr. and Mrs. Fisher sailed on February 22nd, from New York, for a trip through the Mediterranean.

T. E. Kerwin, a master plumber and citizen of prominence, of Albany, N. Y., has recently returned from a month's pleasure jaunt through Florida. He visited Jacksonville, St. Augustine, Daytona and Miami and returned North by boat from Savannah. He was met on arrival at New York by President Frank Lasette, of the New York State Association of Master Plumbers, and was warmly welcomed by a host of his New York friends as well.

## THE EAGLE WHITE LEAD CO. COMPLETES NEW ADDITION.

The Eagle White Lead Co. is just completing an addition to its plant at Broadway and Reading Road, Cincinnati, O. The building is of steel and concrete construction 100x125 feet, with five floors and is to be devoted to the manufacture of plumbers' lead goods.

## A THRILLING EXPERIENCE ALONG THE OHIO.

William A. Henn, general superintendent of the Peerless Selling Co., Evansville, Ind., is a man of ideas. In emergencies he can do a few stunts in record breaking



Street in Front of Mr. Weaver's Home.

time that would stump some other fellows who are not in the habit of using their brains.

Some weeks ago the water in the Ohio River rose to a dangerous point, flooding the low lands adjacent to it. It reached the highest stage since 1884 and a great many



Pumping Water From Weaver Basement.

people were driven out of their homes by the unlooked-for flood.

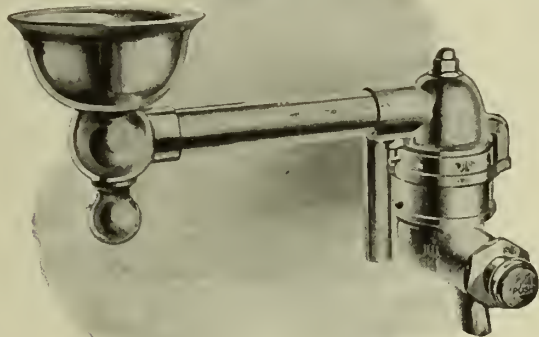
The home of H. F. Weaver, secretary and general manager of the Peerless Selling Co., is near the banks of the Ohio River, a short distance above Evansville. It is a delightful place to live when conditions are normal, but when the water rose to such a height this winter, it very nearly became a Noah's Ark for Mr. Weaver and his fam-

ily. The situation was explained to Mr. Henn, whose ideas about pumps were sought in an effort to guard against the Weaver home becoming a floating ark. It did not take long for Mr. Henn to procure a rotary pump, and driving a Stanley Steamer into Mr. Weaver's yard, he jacked up the rear wheel, belted it to the pulley on the pump, started the engine and in a short time had pumped all the water from the Weaver basement and had overcome the worst of the flood condition.

Mr. Henn has gained some little local reputation for his exploit, although his ability in perfecting the goods of the Peerless Co. had been known for some time.

#### THE "EBINGER" COMBINATION SWING ARM FOUNTAIN.

A new combination drinking fountain has recently been brought out by the D. A. Ebinger Sanitary Mfg. Co., 180-200 Lucas Street, Columbus, O. In setting forth the special features of this fountain, the manufacturers state that it combines the advantages of a sanitary swing



"Ebinger" Combination Swing Arm Fountain.

arm fountain and self-closing faucet; that it is adjustable to any pressure, from 3 to 100 pounds; permits drawing water directly into glass, and the automatic return of fountain arm prevents waste of water. The valve of faucet may be removed without disturbing other parts or connections. It is provided with standard connections to fit lavatory or sink. Interested parties can obtain full information by dropping a card to the manufacturers, mentioning "Domestic Engineering."

#### THE "SENSIBLE" BATHTUB CARRIER.

The Canfield Supply Company, of Kingston, N. Y., jobbers of plumbing and heating supplies, have recently



The "Sensible" Bathtub Carrier.

placed on the market a bathtub carrier. It is named, the "Sensible" Bathtub Carrier. This carrier makes it con-

venient for a plumber and helper to easily carry a tub upstairs without the danger of breaking their backs, the wall or the bathtub. The carrier is strong and easily adjusted, and the Canfield company is meeting with success in introducing it. It was invented and is manufactured by F. W. Swift, Wappingers Falls, N. Y.

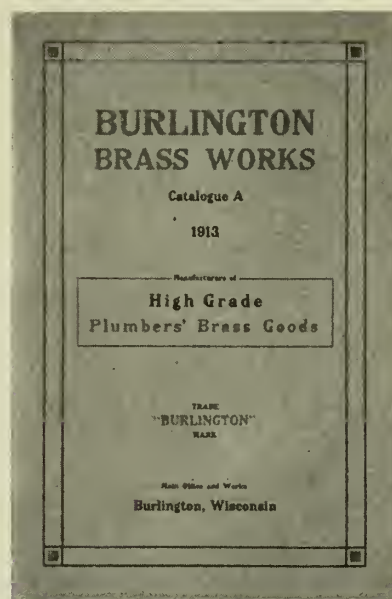
#### ISSUES ATTRACTIVE CATALOG.

An interesting catalog of plumbers' brass goods has recently been issued by the Burlington Brass Works, Burlington, Wis., the front cover of which is reproduced herewith in miniature. A view of the company's plant



New Plant of the Burlington Brass Works.

reproduced in miniature from the frontispiece of the catalog, is also shown on this page. The catalog is 6x9 inches in size, is printed on heavy glazed paper, and contains 46 pages. It illustrates and describes a complete line of Burlington compression basin cocks, compression bibbs, compression stops, compression bath cocks, Fuller bibbs, Fuller bath cocks, and the well-known Burlington self-closing work. Interested parties can procure a



New Catalog of Burlington Brass Works.

copy of this booklet by writing the Burlington Brass Works and asking for catalog "A." Kindly mention "Domestic Engineering" when writing.

Fairbury, Ill.—G. F. Sullivan and C. C. Hollenback have formed a partnership and will engage in the plumbing business here.

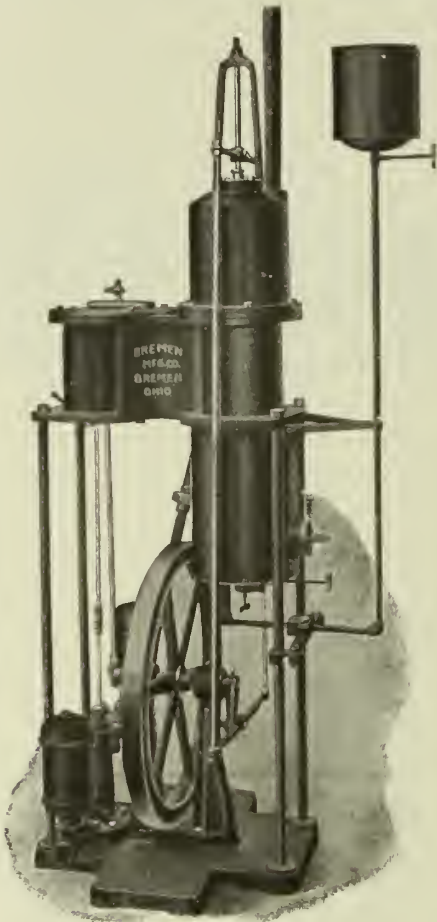
Kaukanna, Wis.—Frank S. Mitchka Co. will soon open a heating and plumbing establishment in the Canham building on the south side of town.



### CALORIC ENGINES AND WATER SYSTEMS.

The name "Caloric" is already known to many in the business as the trade name of the pumping engines manufactured by The Bremen Mfg. Co., of Bremen, Ohio.

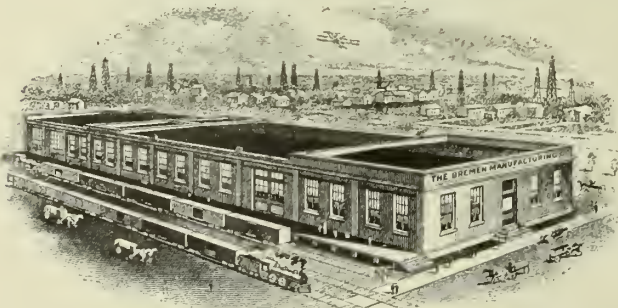
The Caloric engines are built on the principle of the expansion of air under heat, the heat being generated in



The "Caloric" Pumping Engine.

the cylinder by the use of either a gas or gasoline burner placed immediately below it.

The simplicity of the engine is easily understood and it is claimed that a woman or child can operate it. It is only necessary to light the burner, allow it to generate heat for about five minutes, then with one hand give the



The Plant of the Bremen Mfg. Co.

wheel one revolution, and the engine continues to run as long as the fire is kept burning beneath the cylinder.

The Caloric engine is built in several sizes; capacities varying with the distance to the water and elevation to

which the water must be pumped, or the pressure required in a pneumatic tank.

The manufacturers claim that one gallon of gasoline runs a 6 inch engine 10 hours. It is possible to use the Caloric engine to operate a cream separator or run other light machinery, where the power required is not too great.

It is claimed that there is no danger from freezing if the engine is properly drained, and that the engine as a part of a water system, is equally valuable to the man on the farm, the suburbanite, or village resident.

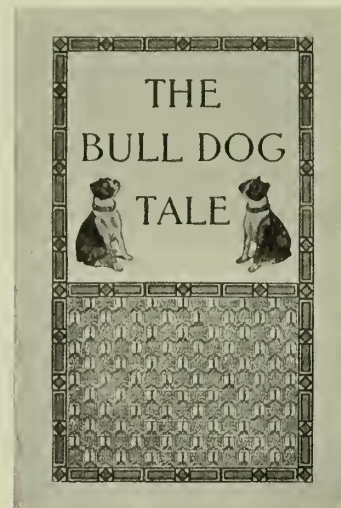
The hot air engine is said to be the only one that will give complete satisfaction for home use, and the only one that can be run with safety by a woman or child.

Caloric engines are built for service with both deep and shallow wells, and are fully guaranteed by the manufacturer.

The catalogue of Caloric noiseless engines and water systems, together with net prices, will be gladly sent by The Bremen Mfg. Co., Bremen, Ohio, upon mention of "Domestic Engineering."

### OSTER MANUFACTURING CO., ISSUES NEW BOOKLET.

The Oster Manufacturing Co., 2160 East 61st Street, Cleveland, O., has recently issued a very attractive and interesting booklet entitled "The Bull Dog Tale," in which is attractively treated descriptions and illustra-



Front Cover Design of Oster Mfg. Co.'s New Booklet.

tions of their line of "Bull Dog" stocks and dies. This booklet has about it an air of practical common sense that is unusual and its value to the reader is made greater by the facts and illustrations shown carefully blended in its pages.

A copy of this very interesting booklet will be gladly sent by the Oster Manufacturing Co. to those interested upon request mentioning "Domestic Engineering."

Nevada.—The Nevada Plumbing Co. has been awarded the contract for plumbing and heating in the residence being erected for R. A. Frazier, the amount of the contract being \$1,400. This company is also completing plumbing in residence for S. C. Wells. Mr. Chapman states that the year just closed has been a very successful one and that prospects for the coming year are very bright.



### SLIGHT IMPROVEMENT IN IRON.

For the first time in several weeks conditions in the pig iron trade look brighter. No large sales have been made, but numerous inquiries have been received for small lots and some orders closed mainly for a few hundred tons. It is probable that 30,000 tons were sold in the eastern district last week, and nothing of importance in the west. The principal thing that is keeping the pig iron market up at the present is not the orders received or those contemplated, but it is the wonderful business being transacted in finished steel. In this line the railroads are purchasing just as much material as they ever did, and during the last week shipments of finished steel have been in excess of the orders received while the orders have been by no means small. The unfilled orders of the U. S. Steel Corporation showed a diminution of 170,000 tons about 2 per cent, largely because of the poor buying early in the month. During the last two weeks it is fair to assume that the buying was nearly up to the shipments. Pig iron prices remain steady as follows:

No. 2X Northern foundry, New York..	\$17.75 to \$18.00
No. 2 plain Northern fdry. New York.	17.50 to 17.75
No. 2 Southern, Cincinnati .....	16.50 to 17.00
No. 2 Northern, Chicago .....	17.25 to 18.00
No. 2 Southern foundry, Birmingham..	13.25 to 14.00

### COPPER BARELY STEADY.

The statement of the Copper Producers' Association for February was on the whole disappointing even though it did show an excess of deliveries over production. It must be remembered, however, that production has been exceeding deliveries for several months, and this small excess, amounting as it did to only 1,000,000 pounds, was less than 1 per cent, or amounted to the transactions of less than a day. Prices continue to hover slightly below 15 cents, and metal is offered at around 14¾ cents for delivery in thirty days. The unsettled condition in Europe, particularly the fear that German industrial progress may be seriously checked by a most extraordinary scheme of taxation by the ruler of that country for a large armament, is having a very serious sentimental effect on the market. American consumers may be expected under ordinary conditions to take around 60,000,000 lb. a month and perhaps 70,000,000 lb. the rest of our tremendous production, amounting to 130,000,000 lb. monthly, must be exported and find a market abroad. Should business be retarded there stocks must necessarily accumulate, but before that time there will be a drastic shaving of prices. The incentive for higher priced copper must come from Europe and not from the United States.

### TIN.

The U. S. Steel Corporation has been reported to be a heavy buyer on the present rate, but this did not prevent the price from sagging to new low levels and sales were made in wholesale lots at around 46½ cents. The market is unsettled at best.

### LEAD.

Prices are higher. In New York 4.35 cents is asked and in St. Louis 4.20.

### SPELTER.

Higher prices have been named and spelter is offered at 6.40 cents New York and 6.30 in St. Louis.

### NEW YORK STATE CONVENTION CLOSES AT BUFFALO.

One of the most successful meetings of the New York State Master Plumbers' Association closed at Buffalo, Wednesday, March 12. Headquarters were maintained at the Hotel Iroquois.

The retiring officers are: President, Frank B. Lasette, New York City; secretary, John J. Hannegan, New York City.

The officers elected were: President, Walter H. Caines, Buffalo; vice-president, Geo. L. Brucker, Utica; secretary, A. C. Kramichfeld, Buffalo; treasurer, Charles A. Campbell, Watertown.

Delegates-at-large to the national convention: Jas. A. Doody, Albany; John R. Sheehan, Schenectady; John F. Knaupp, Troy; John J. Hannegan, New York; Fred Le Valley, Elmira; T. E. O'Brien, Brooklyn.

It was decided to hold the 1914 convention at Utica.

A full report of the proceedings will appear in the next issue of "Domestic Engineering."

### INDIANA PLUMBERS ELECT OFFICERS.

At the convention of the Indiana Master Plumbers' Association, which closed at Indianapolis on March 12, William J. Wooley was re-elected president for 1913. Joseph Hayes, of Indianapolis, was elected vice-president; A. E. Werkhoff, of Lafayette, secretary and treasurer, and E. M. Smith, assistant secretary. The 1914 meeting is to be held at Lafayette.



### Mrs. J. M. Marty, Jr.

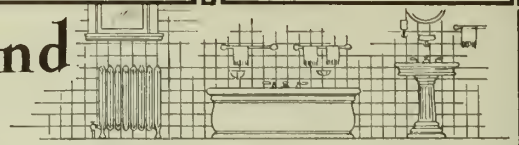
Mrs. J. M. Marty, jr., wife of the president of the Standard Pump & Engine Co., of Cleveland, Ohio, passed away in that city about three weeks ago. Mrs. Marty has been a sufferer for several years. The sympathy of the trade goes out to her husband in his bereavement.

### Wilfred F. Heroux.

Wilfred F. Heroux, a master plumber of Central Falls, R. I., died at his home in that city on Thursday night, February 27th. His death followed an illness extending over a period of about four months. Mr. Heroux had been a resident of Central Falls for about 15 years. For many years he and his brother Lucien were engaged in the undertaking business, but a few years ago the firm was dissolved and Wilfred opened a plumbing establishment, having learned the trade many years before. He was unmarried and was prominent in fraternal circles.



# Among the Plumbing and Heating Contractors



## Illinois

Chicago.—A property owner in Chicago has recently brought an injunction suit against the city to restrain it from enforcing the ordinance compelling the installation of automatic gas valves. The suit is now before Judge Honore and will, no doubt, be decided shortly. The ordinance is the result of a law passed at the last session of the Illinois legislature compelling the installation of these gas valves for additional fire protection, but its validity has been questioned since that time. A great many Chicago plumbers and gas fitters have been busy through the winter installing these valves and the present fight has put a temporary stop to this work.

At a meeting of the Directors of the Builders' and Traders' Exchange recently, a resolution was adopted insisting upon the public opening of all bids for work or labor in the building industries. The committee, consisting of O. W. Jovien, John Sunderman, C. W. Jones and Geo. H. Kirk, has been appointed to co-operate with the various employers' associations in the building lines, that a better understanding of the beneficial results of united action along this line may be obtained.

A housing exhibition of considerable interest will be open at the City Club of Chicago, March 17th, and will continue daily from 2:30 to 9:30 p. m. Modern sanitary features of the most improved types of dwellings will form an interesting part of the exhibition. Historical types of dwelling in Chicago from 1830 to the present date will also be shown along with examples of dwellings now being erected in this city. Another instructive part of the exhibition will be the municipal regulation of housing conditions in German cities, which are carried out through the zone plan of regulation.

On Wednesday, March 19, a dinner will be given at the City Club. On this occasion Chief Sanitary Inspector Charles B. Ball will speak on the topic—"Strong and Weak Points of Chicago Building." The exhibition to be held at the club room promises to be of a wide and extensive character. Every phase of improvement and progress in the structure of dwellings will be displayed for public inspection. The exhibition should prove of especial educational value to master plumbers and contractors.

Thomas Claffy, Asst. Chief Sanitary Inspector of Chicago, and President of the American Society of Inspectors of Plumbing and Sanitary Engineers, has announced that the delegates at the next annual convention of the society to be held in Louisville, Ky., May 20-22, will have the privilege of hearing addresses by some of the nation's ablest authorities on plumbing and sanitation. The following experts along this line who have already consented to be present as speakers are Dr. Burns, Chief Medical Inspector, Board of Health, Pittsburgh. He will address the convention on the subject, "School Plumbing and Sanitation." Dr. Milton W. Franklin of the Mining and Engineering Department, Schenectady, N. Y., will take for his theme, the topic, "Ozone." R. H. Ellithorpe, Plumbing Inspector of Fresno, Cal., will speak on the success of

the septic tank method of sewage disposal in that city covering a period of five years. Other speakers of wide reputation have also been invited to appear on the program. One of the delegates to the convention who must travel a very long distance is D. S. Bowman, Plumbing Inspector of Hilo, Hawaii. He recently wrote Mr. Claffy that he would be on hand when the society meets.

Vocational training for children of the State of Illinois, between the ages of fourteen and twenty is the subject of a bill just introduced in the Illinois Legislature which has the backing of the Illinois Bankers Association, labor men, commercial interests, civic bodies and educational men of the state. It represents a combination of the ideas of former Chicago School Supt. E. G. Cooley, Francis G. Blair, state superintendent of public instruction, and others who have given the matter study. The aim of the bill is to provide for education in various trades and occupations for boys and girls who must otherwise leave school before completing the school courses. The plan is to meet the needs of these young people, so that they can go out into the world and earn a living by means of such training. Similar courses are in use in Europe and have proven their worth by years of experience with them.

John A. White, master plumber of Brooklyn, N. Y., passed through Chicago on his wedding trip recently. He called on some of his friends in the trade during his brief sojourn in the city.

Bloomington.—Frank Sullivan, 103 W. Monroe street, has contract for installing the plumbing and heating system in the new Chicago & Alton depot here. The job will figure about \$10,000. The work will begin at once. Mr. Sullivan reports prospects for the season just opening to be the brightest they have been for several years.

Pekin.—Mathews Plumbing Co. has moved from 345 Court Street to 348 Margaret Street where it now occupies its own building. The company has a large double-front display room and a deep workshop back of it.

Danville.—Adkins and Basinger have opened a plumbing establishment at 101 W. Mow Street. Both members of the new firm are local men and well known in the trade.

Peoria.—Flanagan & Fahey have opened a plumbing and heating business at 227 N. Adams Street. Both men have had several years' experience in these lines. They report considerable business already in hand.

## Indiana

Kokomo.—Business has been exceptionally brisk here the past year and prospects are excellent for this coming season. It is estimated that not less than 200 residences will be built in Kokomo this year.

A. C. Bennett has the plumbing and heating contracts on the post office at Elwood, Ind., the contract price being \$6,000; also the heating contract on the Eagles' home, contract price on it being \$2,500.

W. C. Hunter reports a very prosperous year, having

installed 40 bath-room jobs alone in 1912. He is at present working on five heating contracts for various residences.

T. E. Sullivan has been awarded the following contracts: The plumbing and heating for the new Seward garage at a price of \$1,800; the plumbing contract for the Eagles' home, and the heating and plumbing contracts of two flats at a price of about \$1,000 each. Mr. Sullivan reports a very prosperous year.

Logansport.—A new plumbing and heating firm is to be opened here shortly by the name of Philip Voorhees & Son. The firm is well known here, as they are at present, and have been for a number of years, engaged in the wholesale and retail lumber business in this city. Arthur W. Voorhees, the junior member of the firm, will have active charge of the plumbing end of the business.

## Kentucky

Business is running so quietly in plumbing and heating circles in Louisville and Kentucky these days that the chances of an advancing market in supplies are extremely remote. Various authorities in the trade declare that a downward revision of price in certain supply items is imminent unless relief in the way of brisk business among the master plumbers is forthcoming immediately. The stiff cost of practically every raw material entering into the manufacture of supplies is the sole preventive of an immediate slump in the market, the manufacturers and jobbers being disposed to hold as firmly as possible when the cost of doing business is so pronounced. In view of the fact that increased pressure in material costs is not looked for just at present, it may not be long until price shading to bring out all possible business becomes evident.

The passage of a fortnight has brought a bunch of new work to M. J. Duffy & Sons which is decidedly worth mentioning. The contract for installing the plumbing and drainage equipment in the big new addition which the Oertel Brewing Co. has erected at its bottling plant on Story avenue, has been awarded the Duffy firm. Included in this work, which is to cost about \$2,000, is the installation of a number of cess-pools according to federal specifications in the big brewing plant, inasmuch as Uncle Sam now has an eye to the sanitation of establishments which come under Internal Revenue inspection. Three fine residence jobs appear on the schedule of the firm: the new home of Lafon Allen at Glenview, a suburb of the city, and the dwellings of W. R. Mason and C. L. Nelson, in Cherokee Park. The most recent contract of the Duffy firm was for the plumbing at Hazlewood Sanitarium, on the Seventh street road. Extensive drainage equipment for the satisfactory disposal of sewage at the sanitarium has been installed and a new installation of plumbing demanding fifteen fixtures or more is now being made.

The plumbing in St. Luke's Reformed Lutheran Church, on Jefferson street between Nineteenth and Twentieth, is to be done by the Isaacs Plumbing Company, 101 E. College Street, according to the terms of a contract recently closed. The church job demands the installation of four water-closets, four wash-stands, a drinking fountain and a complete outfit of kitchen plumbing.

Installation of the plumbing in the new \$50,000 residence of Louis Seelbach, has been commenced by P. H. Meyer & Co., 640 S. Preston Street. Mr. Meyer recently re-

turned from a business trip out in the state, where his company has some fine business in prospect.

A plumbing contract of considerable size, for work in the German Protestant Orphans' Home on the Bardstown Road, has been closed and operations have been commenced by F. William Meyer.

J. F. Leanhart & Co., 706 W. Jefferson Street, have recently installed a heating system in the new residence of Frank Fehr, in Cherokee Park consisting of thirty-four radiators and a separate heating plant with all connections for the garage. A heating system requiring twenty-three radiators and about 600 feet of pipe connections, is being installed by this company in the residence of Charles L. Nelson, in Cherokee Park.

Theodore Ahrens, president of the Ahrens & Ott Manufacturing Co., of Louisville, has been appointed a member of the state and city development committee of the Louisville board of trade.

A. J. Anderson, president of A. J. Anderson & Co. has been elected president of the Builders' Exchange of Louisville. Mr. Anderson is one of the sincerest workers in the big organization of the allied structural trades.

The Seelbach hotel has been designated as the meeting place of the American Society of Plumbing Inspectors and Sanitary Engineers when that organization meets in Louisville for its 1913 convention, May 20, 21 and 22. Evidence of the interest manifested in the coming event is found in the fact that reservations of the best accommodations in the house for the dates set are already being made. A strong program is now being arranged, replete with suggestions from various members of the society. J. S. McGrath, plumbing inspector of the city of Louisville, has especial charge of the elaborate preparations which are being made for the reception and entertainment of the national hosts and the Louisville Convention & Publicity League is aiding him in every possible manner.

## Minnesota

St. Paul.—Regelsberger & Co., Seven Corners, were awarded the plumbing in the new St. Mark's Parochial school in Merriam Park. M. J. O'Neil, 60 E. Sixth Street, has the heating contract.

B. O. Frazer, 420 Fairview Avenue, was low bidder on the plumbing in a four-flat building to be built at the corner of Rondo and Fairview Avenues for Edw. Hedding, of Minneapolis.

J. P. Simpson, 783 University Avenue, was the successful bidder on the plumbing and gas fitting in a four-flat building at Sherburne Avenue and Avon Street.

E. J. Stahl, 506 St. Peter Street, is completing the plumbing in a four-flat building at Goodrich and Lexington Avenues for the Sperry Realty Co.

Swanson Bros., Capital Bank building, are installing a heating system in a duplex flat building for Herman Johnson at Farrington and University Avenues; a duplex flat for F. B. Stork at Hague and Fairview Avenues; also installing the steam heating in Fitzpatrick flats on W. Ninth Street.

George McGeary, 163 W. Third Street, is installing a heating plant in the new building at University Avenue and Chatsworth Street for the Curtis Printing Co.

Schneider & Tuckert, Seven Corners, are installing a heating plant in a new residence at 618 Temperance Street.

Wagner & Tschida, 603 N. Dale Street, were the low



bidders on the plumbing in E. S. Winders' new residence at Cambridge and Lincoln Avenues; in E. A. Finehout's new residence at 960 Sherburne Avenue; plumbing and gas fitting in Jos. Schoenick's dwelling on Vernon Street; and a new residence for John Schultz at 1050 Edmund Street.

## Ohio

Carrollton.—Bids for the heating system for the school building to be erected by the board of education are: Boyce Heating Co., Toledo, \$5,798; Bartlett Bros., Cleveland, \$4,971; Columbus Heating & Ventilating Co., Columbus, \$5,990; Lamneck Co., Columbus, \$5,399; Peck-Hammond Co., Cincinnati, \$5,144. Bids on the plumbing on the same building were: Huffman-Conklin Co., Columbus, \$5,886; Justus Heating Co., Massillon, \$5,778; W. H. Conklin, Columbus, \$7,084.

Lorain.—Service Director Dawes has notified all master plumbers in the city that in the future the city plumbing regulations will be enforced to the letter. All new work must be reported to the proper officials.

The Roberts Plumbing Co. has been awarded the contract for the plumbing and sewage for the Westwater building on Front Street.

Canton.—Following their agreement with the board of health, when the board decided to quash all of the affidavits against the master plumbers who refused to obey the law, 23 of the master plumbers secured permits for work which the board decided they could under the old code.

Bowling Green.—The school board of Bowling Green has ordered architects Howard & Merriam to revise the plans and specifications on the plumbing in the new school building to be erected during the summer.

Delaware.—The Masonic Temple, a \$30,000 structure, will be started in the near future. Plumbing and heating contracts have not been let. The city is contemplating erecting a new library this spring costing \$35,000.

Toledo.—Holmes and Landwehr, 1508 Adams street, have rearranged their show room, displaying boilers and other steam and hot water apparatus.

Geo. J. Gildorf, 1318 Adams street, is furnishing plumbing in the Kripke building.

A. G. Moore, 2958 Monroe street, is erecting a new building at 2934 Monroe street to be used as his office display room and shop. It will be finished about April 1st, and Mr. Moore expects to move as soon as it is completed.

Edw. Ehinger, 330 Bancroft street, has just finished plumbing and steam heating job in Epstein flats, Glenwood avenue, amounting to \$3,500.

Blatter & Heath, 2029 Ashland avenue, completed sixty repair jobs last month, consisting mostly of lift pump work.

Wm. Hillenbrand Co. purchased the property at 112-114 W. Court Street from the estate of F. Reutepohler, at a price said to be close to \$30,000. The lot is 32 by 120.

John J. Vogelpohl, 4156 Hamilton Avenue, has opened a new syndicate subdivision at the foot of College Hill. The tract comprises 18 lots and is situated on Springlawn and Howard Avenues. Three buildings representing an investment of \$15,000 will be erected on the tract at once.

J. C. Homan, 4606 Eastern Avenue, is contemplating the erection of three dwellings to cost \$3,500 each.

Walter Mullen, formerly a master plumber and later a plumbing inspector, is now calling on the local trade in the interests of the McDonald Co., jobbers of plumbing supplies.

Tietig & Lee, architects, Lyric Theatre Building, have been awarded the commission to draw plans for a \$225,000 chemistry building for the University and to be located in Burnet Woods.

A. C. Baughman is a new master plumber starting in business at 1413 Main Street, opposite Orchard. Mr. Baughman was formerly with the R. Murphy Plumbing Co. and Murphy & Ditchen.

Louis Dellerman, of Reading, O., bought the business of C. E. Montague, of Lockland, O.

## Pennsylvania

Philadelphia.—Thos. H. Beamer & Co., 57th and Pine Streets, have been awarded contract to install plumbing and heating apparatus in the property at the corner of 39th and Girard Avenues.

A. H. Williams & Son, 411 Locust Street, have been awarded contract to install heating apparatus in the Kensington hospital Fontain and Waterloo Streets. Cost \$5,160.

Chas. E. Smith & Son, 17 E. Coulter Street, Germantown, Pa., have been awarded contract to install heating and plumbing in the property at 54 W. Chelten Avenue for Wm. Wilkie.

H. T. Campbell, 29th and Stiles Street, has secured the plumbing and heating contract in the property of J. Kern at the corner of 30th and Cambridge Streets.

F. Horowitz, 1137 S. 8th Street is just completing the plumbing and heating in the apartment house at the Cor. 5th and Delancey Street for S. W. Krause.

H. M. Brown, 2111 W. Susquehanna Avenue is installing plumbing in the properties at 2445-7 No. 20th Street for Girard Trust Co.

L. J. Craig & Co., 346 Queen Street, has been awarded the plumbing and heating contract in the Shoemaker operation which is being constructed in Chestnut Hill, Pa.

Jos. Scholl, 2712 Girard Avenue is making extensive alterations in plumbing in the property at 1729 Arch Street.

B. Landau, 1216 No. 4th Street has just been awarded contract for the plumbing in 18 houses which will be erected in Lawndale, Pa.

Wm. F. Rentschler & Bro., 2631 Girard Avenue have been awarded plumbing contract for the new stores and apartment house being erected in Frankford, Pa., for Mr. Freihoffer.

The regular monthly meeting of the Philadelphia Master Plumbers' Association was held at the Builders' Exchange, Thursday Evening, March 6th. Richard H. Watson received the congratulations of the entire association, this month being his 50th anniversary as a master plumber. Mr. Watson spoke very feelingly. Nominations were made for delegates for the coming state convention in Pittsburg. State President Wills' letter, regarding the convention, was received with considerable interest, in fact so much interest is shown that Philadelphia expects to be represented in Pittsburg by about forty men.

The firm of Wm. P. Ogelsby, one of the oldest plumbing establishments of this city, is retiring from business. Mr. Ogelsby presented his resignation at this meeting, very much to the regret of the members.

The subject of water meters again provoked a warm discussion. Thousands of meters were purchased many months ago, and as the city has volunteered to install the water meters free of charge, the owners are still waiting for the installation of their meters, which in many cases have been bought and paid for as far back as November. Members of the Philadelphia Association assert that it is unjust for the city to do plumbing work as the installation of water meters is work belonging, by rights, to the master plumber. Efforts are being made to induce the city authorities to transfer the work of installing water meters to where it belongs, namely to the master plumbers.

Through the courtesy of the association, Mrs. Mae Gottschalk, widow of plumber recently killed by cave-in of ditch, was sent a check of \$25. Wm. J. Beatty, former employer of the man killed, expressed his thanks to the association on behalf of Mrs. Gottschalk.

Five new names were added to the roll of membership at this meeting.

Committees for the coming national convention are hard at work, preparing for the event in a fitting manner. The exhibition committee especially is being kept busy answering inquiries, regarding space from manufacturers anxious to display their products.

Wm. H. Doyle, past president of the National Association of Master Plumbers, who has passed through a serious illness, is reported as being convalescing.

Mr. Robt. Weir has just returned to his business, after being confined to his home for a number of weeks.

## Washington

Seattle.—Chris Christopher was awarded the contract for the installation of 400 toilet rooms at an approximate cost of \$10,000, in the Noyes block, 923 First Avenue.

The Ernst Hardware & Plumbing Co., 514 Pike Street, were recently awarded the contract for installing plumbing fixtures in six residences for A. L. Estes.

The Eckart Plumbing & Heating Co., 1614 Third Avenue, has the contract for installing plumbing fixtures in a residence owned by G. B. Foy at 2112 Fifth Avenue N.

The Independent Plumbing & Heating Co., 2404 First Avenue, will install plumbing fixtures in the following residences: Chris Baker, 4410 45th Avenue S.; R. W. Hutchinson, 4212 39th Avenue S. W.; S. Scholme, 722 N. 74th Street.

Hammond & Sessions, 230 Madison Street, will install plumbing fixtures at 4320 W. Morgan Street for F. C. Givans.

George A. Schott, 307 N. 83d Street, will install plumbing fixtures in a residence at 734 N. 78th Street for C. Capron; also in a residence at 1125 N. 85th Street for L. Abentsworth.

The West Seattle Sheet Metal Works, 2619 California Avenue, will install plumbing fixtures in a residence at 4055 42d Street S. W., for W. H. Hainsworth.

O. Peterson, 1710 W. 57th Street, during the week just past secured contracts for installing plumbing and heating fixtures in the following residences: C. Reading, 109 N. 56th Street; S. Berg, 825 N. 60th Street and 831 N. 60th Street; P. E. Wentworth, 4203 and 4207 Corliss Avenue; W. F. Fredenberg, 1761 W. 57th Street; C. Sherley, 3309 Hunters Boulevard; and Fred Sanders, 856 W. 61st Street.

Purcell & McDonald, of Georgetown, were awarded the

following plumbing contracts: Georgetown city hall; M. Bush, 6022 17th Avenue S., and M. O., Loughlin, 227 Bennett Street.

The Montgomery & Young Plumbing and Heating Co., 4140 14th Avenue N. E., has the contract for installing plumbing fixtures in a residence at 2007 33d Avenue S. for the Modern Bungalow Co.; in a residence at 150 McClellan Street for Dr. Mabel Seagrave; H. Westphalen, 4925 12th Avenue N. E.; and for Ella M. Black, 6038 32d Avenue N. E.

The Rustad Plumbing & Hardware Co., 315 Second Avenue S., will install plumbing fixtures at 1426 63d Avenue S. for J. A. Tillman.

Kennedy & Tyo, 2215 E. Union Street, have the following residence plumbing contracts: Will and Nesbit, 2036 32d Avenue S.; R. S. Knipe, 3414 and 3418 E. Denny Way.

University Plumbing Co., 3939 14th Avenue N. W., has the contract for installing plumbing fixtures in a residence at 2045 E. Newton Street for K. H. Stewart; also in a residence at 4548 20th Avenue N. W. for F. W. Brigham.

R. Johnson Co., 4418 Woodlawn Park, has the contract for plumbing two residences for Anton Wickstrom at 2827 and 2321 Yancy Street.

J. N. Shafer & Co., 504 N. Lake Avenue, will install plumbing fixtures for Herbert Smith at 2032 33d Avenue S.

The Northwest Plumbing Co., 2246 15th Avenue W., will install plumbing fixtures at 6512 27th Avenue N. W. for Mrs. Mary A. Woods.

S. L. Langkam Co., 355 N. 73d Street, will place plumbing fixtures in a residence at 7009 Second Avenue N. W. for Robert Dunn.

Williams & Gowey, 2309 Dearborn Street, will install plumbing fixtures in the following residences: Anna C. Johnson, 2508 Norman Street; Mary A. Soule, 1353 32d Avenue S.; E. S. Dakin, 1106 23d Avenue S.; H. Lehman, 1704 Atlantic Street.

A. C. Urch, 2606 W. 58th Street, will place plumbing fixtures in a residence at 6733 26th Avenue N. for D. Boswell.

The South Park Plumbing Co., South Park, will place plumbing fixtures at 802 Sullivan Street for Pat McGee.

The Georgetown Plumbing Co., Georgetown, will install plumbing and heating fixtures at 5202 Swift Street for F. S. Cogshall.

Ward & Scherer, 111 Pine Street, will install plumbing and heating fixtures at 5730 Pinnallas Place for E. S. Campon.

W. K. Hendrickson, 6006 Hillman Place, has the contract for plumbing in a residence owned by S. Larson at 3969 Evanston Avenue.

The Georgetown Plumbing Co., 5715 Duwamish Avenue, will install plumbing fixtures at 5910 Swift Street, for Mrs. M. Barton.

Tacoma.—One of the largest plumbing contracts recently awarded in this city was that in the Central school building, G Street and Tacoma Avenue. The amount of this contract was approximately \$10,000 and calls for 103 fixtures. M. A. Thompson Co., 1013 S. G Street, were the successful bidders.

A. W. Kintz, of the Kintz Plumbing Co., Municipal Dock, has the contract for installing plumbing fixtures at 2320 Pacific Avenue, for John Batschi.

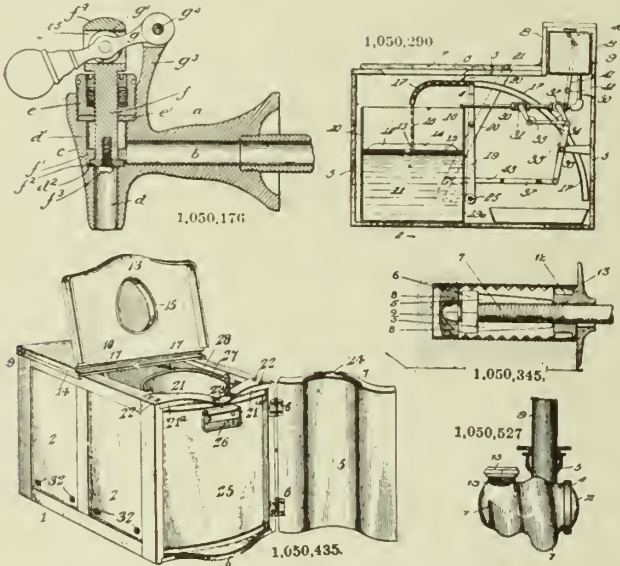
T. C. Grosser & Co., 810 S. 11th Street, have the contract for installing plumbing at 1110 N. 9th Street, for Mrs. M. Rogers. Also for A. Huth, 510 N. 3rd Street.



# Patents

## Plumbing Department.

1,050,176. Faucet. Carl A. Schneible, New York, N. Y. A faucet having a body with a vertical axial bore extending across the end of the horizontal axial bore of the body and enlarged opposite the end of the horizontal axial bore of the body to form a cylindrical valve chamber having a valve seat at its lower end below the end of the horizontal axial bore of the body, a stuffing box above the valve chamber and a sliding plunger having a plunger head of greater diameter than the plunger adapted to fit and be movable in the cylindrical valve chamber and having a thickness less than the diameter of the horizontal axial bore of the body, the valve chamber being extended above the end of the horizontal axial bore of the body a distance greater than the thickness of the plunger head, an arm extending above the level of said stuffing box, a lever pivoted to said arm and adapted to reciprocate said plunger.



1,050,290. Sanitary Dry Closet. Guy Posson and Lulu Posson, Los Angeles, Cal., assignors to Sanitary Manufacturing Company, Phoenix, Ariz., a corporation of Arizona. In combination, an inclosure having a seat opening in its upper surface, a seat cover hinged to the inclosure, a liquid receptacle within the inclosure and beneath the seat opening therein, a perforate member adapted to normally float near the liquid surface in the receptacle, and means operated by the movement of the seat cover to move the perforate member vertically out of the receptacle.

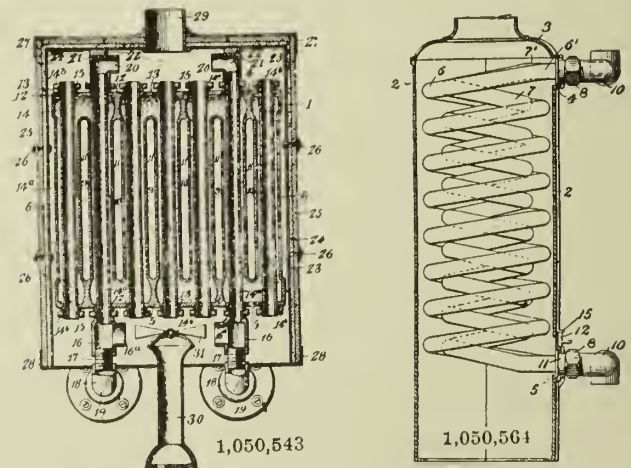
1,050,435. Cabinet Closet. Dan B. Eastman, Minneapolis, Minn., assignor to Charles F. Merriman, Minneapolis, Minn. A cabinet closet of the class described, including a casing comprising side and rear walls, a hinged door constituting the front wall of the casing, and a top having a hinged lid provided with a seat opening, a tank arranged within the casing and removable at the front thereof, a receptacle supported within the casing and extending into the tank and removable at the top of the

said casing, and a metallic shield extending across the front of the casing at the top thereof and connected with the side walls of the same and constituting a top connecting bar and having an inclined central portion extending from the upper edge of the floor to the receptacle, said shield being also provided at the said portions with depending flanges fitting against the inner face of the door.

1,050,345. Expansion Bolt. Joseph R. Conrad, Chicago, Ill., assignor, by mesne assignments, to U. S. Expansion Bolt Co., New York, N. Y., a corporation of New York. In an expansion bolt, a pair of co-acting shells, each formed on its interior with longitudinally inclined faces, an expansion member within said shells adapted when advanced against said inclined faces to force said shells apart, a web formation at the inner end of each of said shells having a cut-away tapered portion therein, a bolt in engagement with said expansion member adapted when rotated to advance its inner acting end against the tapered faces of said cut-away portion to force the inner ends of said shells apart, and means for preventing initial expansion of said shells at the outer ends thereof, substantially as described.

1,050,527. Anti-siphon Trap. Frank Du Mond, Rochester, N. Y. An anti-siphon trap comprising a body elongated horizontally and provided with an internal groove leading from one end of the trap to the other, an inlet extending from a point above the body, making a lateral and upward bend prior to connecting with the body, so as to provide a seal in said bend, the inner end of said inlet merging into the spiral groove at the bottom of the body near one end of the latter and on a tangent to said body, and an outlet leading through the top of the inclosing wall of the body near the opposite end, whereby the material is caused to flow in a spiral path about a horizontal axis from the inlet to the outlet.

1,059,543. Water Heater. James Johnson, Chester, Pa. In a water heater, a heating unit provided with a water chamber having a series of upright staggered webs therein defining a tortuous up and down channel for water from one end of the chamber to the other, opposite walls of the water chamber and the webs being related to define a water channel through the water chamber of substantially square cross section, and flues extending through the channel in substantially centralized relation to the branches thereof, the flues being hollow and opening through the upright walls of the water chamber.

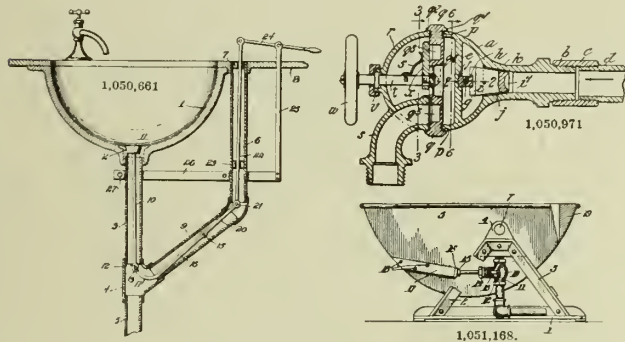


1,050,564. Water Heater. Edwin Ruud, Pittsburgh, Pa. In a water heater, the combination of a casing provided with seat-forming openings, a coil of relatively thin tub-

ing within the casing, combined coupling and supporting devices of tubular form at the extremities of the coil and removably seated in the casing openings, water circulating connections at the exterior of the casing uniting with the couplings, and means removably holding the couplings seated in the casing openings.

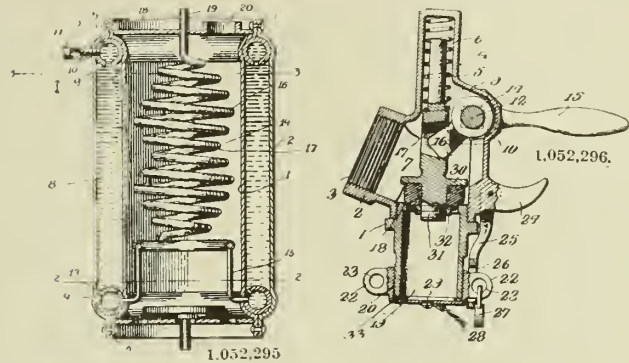
1,050,661. Valve for Toilet-Basins. Robert W. Kelly, Wellington, Tex. A bowl having a waste pipe extending therefrom, a tube extending upwardly at an angle from and communicating with said waste pipe, a second tube extending through the ledge of the bowl and connected with the upper end of the first tube, a valve rod slidable vertically in the waste pipe, a valve carried by said rod and adapted to close against one end of the waste pipe, a rocking lever mounted in the tube and having an attaching long arm terminally disposed in axial alinement with the waste pipe and detachably connected with the valve rod, said rocking lever having a short arm terminally disposed in axial alinement with the second tube, an actuating rod operatively connected with the short arm, and a controlling lever connected with the actuating rod, the point of attachment of the long arm of the rocking lever with the valve rod being disposed below the plane of the pivot of the rocking lever whereby the valve is gravitationally held in a closed position.

1,050,971. Combined Faucet and Drinking-Fountain. Edward A. Meacham, Springfield, Mass. A valve construction comprising inner and outer members, a center-piece for securing said members together, said piece being cored out, the ends of the cored-out portion affording means for the inlet and exit of the fluid, a slide valve for closing the inlet opening, the center-piece having an opening therethrough to permit the fluid to pass, and a plug device to vary the flow from the main source of supply.



1,051,168. Water-Supply Apparatus. Thomas Smith, Salt Lake City, Utah. In a water supply apparatus, a tank means to pivotally mount the tank to one side of its center, a water supply pipe leading into the tank adjacent the upper portion thereof and through one side of the tank, the tank being weighted at its end nearest its pivotal mounting, a valve in the line of the water supply pipe disposed adjacent one side of the tank and having its stem projecting from the supply pipe and provided with a head at its outer end, and a strip immovably secured to one side of the tank and at its inner end provided with an outwardly directed head which is adapted to engage the head of the valve stem to force the valve to its seat upon abutting co-operation of said heads incident to the tank assuming its normal water level position to automatically cut off the supply of water to the tank, the head of the strip swinging with the tank out of co-operative relation with the head of the valve stem when the tank is tilted by its weighted end.

1,052,295. Hot-Water Heater. William Wells, Cleveland, Ohio. A hot water heater comprising spaced inner and outer casings, having the faces of their opposed walls adjacent the bottom and top edges thereof formed with outwardly struck up portions, a horizontally disposed perforated pipe, arranged between the casing at the upper end thereof, and one horizontally disposed perforated member arranged between the casing at the lower ends thereof, said former and latter perforated members being partially embraced by said outwardly struck up portions, a water supply connected with the former mentioned, perforated member and extending laterally from the upper end of the casing and a heating coil located in the inner casing and connected with the latter mentioned perforated member at diametrically opposed points.



1,052,296. Faucet. Abram W. Wheaton, Newark, N. J. A faucet comprising a body having a threaded inlet, and a threaded outlet opening, a nozzle threaded into the outlet opening and having a valve seat at its upper end, a valve adapted to seat upon said seat, means for reciprocating the valve to seat or unseat the valve, the nozzle being threaded at its lower end, an internally threaded cap to fit over the lower end of said nozzle, said cap being provided with a series of laterally extending apertured ears, a hook secured to the body, a link pivoted to the hook and provided with an aperture at its lower end adapted to embrace one or the other of the lugs on the cap, and means for locking the link to the lug.

#### WESTERN CANADIAN PLUMBING INSPECTORS TO ORGANIZE.

A convention of plumbing inspectors and sanitary engineers throughout western Canada is to be held on April 16th, 17th and 18th in the Industrial Bureau building, Winnipeg, Man. The first business of the convention will be the formation of a society or association along the lines of the American Society of Inspectors of Plumbing and Sanitary Engineers, but the most important business will be the consideration and adoption of a uniform plumbing code. The Canadian plumbing inspectors will welcome any person interested in sanitary engineering at this convention. Those intending to be present are asked to send word to that effect to James Smith, plumbing inspector, 223 James Ave., Winnipeg, Man.

Lincoln, Nebr.—Contract for installing plumbing, heating and sewerage connections in the two new buildings at the Lincoln asylum for the insane, was awarded to L. W. Pomerene, of this city, on a bid of \$6,390.

Pulaski, N. Y.—T. A. Campbell has purchased the plumbing and hardware business of George W. Douglas, the latter retiring from business. Mr. Campbell was formerly in the employ of Mr. Douglas for about five years.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

Situations Open.

WANTED: FIRST-CLASS PLUMBER and Sheet Metal Worker, steady position by the year and good wages. Address Box 929, care "Domestic Engineering," Chicago. 3-1-8-15

SALESMAN WANTED FOR TEXAS territory. Men experienced in selling Plumbing and Heating Supplies. Give reference and record in first letter. HIGGINS COMPANY, SAN ANTONIO, TEXAS. tf

WANTED BY THE LARGEST CANADIAN manufacturers of Plumbers' and Steam Fitters' brass goods, a first class man to sell their goods throughout the eastern part of Canada. Must have A-1 references. State experience and salary expected. Address Box 935, care "Domestic Engineering," Chicago.

Miscellaneous

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W Lake St., Chicago. tf.

Situations Wanted.

SITUATION WANTED: PLUMBER 10 years at trade, also steam and hot water fitter, wishes permanent position at once. Steady, sober and reliable. State terms in first letter. Address Box 931, care of "Domestic Engineering," Chicago. 3-8-15

WANTED BY MECHANICAL DRAFTSMAN, graduate, 8 years' experience, two in heating and ventilating work, connection with western concern. Address P. O. Box 298, Chicago, Ill.

WE PUBLISH:

PRINCIPLES AND PRACTICE OF PLUMBING. By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

SEWAGE PURIFICATION AND DISPOSAL. By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

HISTORY OF SANITATION. By J. J. Cosgrove. History of the plumber's craft from the time of the primitive man up to our own day. 88 illustrations. Bound in cloth; postpaid; \$1.50.

A PRACTICAL MANUAL OF STEAM AND HOT-WATER HEATING. By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth, 5½x8¾ in., 359 pp.; postpaid, \$2.50.

MODERN PLUMBING ILLUSTRATED. By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

Address:

DOMESTIC ENGINEERING

445-447 Plymouth Court, Chicago

## What They Want and How They Can Get It

A wants a job in the manufacturing or jobbing department of the plumbing and heating business as a bookkeeper, order clerk or salesman.	B wants to hire a bookkeeper, order clerk or salesman familiar with the plumbing and heating line.
C wants a job as a plumber and steamfitter.	D wants to hire a plumber and steamfitter.
E wants the agency for a line of plumbing and heating goods.	F wants to establish an agency for his line of plumbing and heating goods.
G wants to sell out his plumbing and heating business.	H wants to buy a plumbing and heating business.
J wants a partner in the plumbing and heating business.	K wants to buy an interest in an established plumbing and heating business.
L wants to sell some second hand manufacturing machinery.	M wants to purchase some second hand manufacturing machinery.

Nothing is easier than for these men to get together and do business.  
A small ad in the Classified Columns of DOMESTIC ENGINEERING will bring it about. See rates at top of page.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing, Heating, Ventilation and all Matters Pertaining to Domestic Sanitation.*

Whole No. 1058

CHICAGO, MARCH 22, 1913

Vol. 62, No. 12

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

## LAMBASTING THE PLUMBER.

THE knocker is still on the job. In semi-lucid intervals, when not engaged in taking a fall out of the spring poet and the Easter hat, he gets out his little hammer and goes after the plumber.

Recently the editor of the Kansas City Star allowed a few gentle raps of the hammer to slip past his eagle eyes into the columns of his paper.

Perhaps his intentions were good, and he may still be blaming it upon the cub reporter, but the squibs got to the attention of a lot of good friends of the master plumbers of Missouri and Kansas, and incidentally to a lot of those who were easily influenced by such rot.

Among others who saw the items was the editor of "Domestic Engineering," who at once dispatched the following letter to the Kansas City Star:

Editor Kansas City Star:—The writer has noticed recently in your paper several references to plumbers and the plumbing business which have been anything but complimentary.

In one case you print a letter from a disgruntled citizen of Kansas City, by the name of Parsons, who does not write with the broadminded spirit of a parson, or what we would expect from one. It stating some reasons why he does not like Kansas City he says "The plumbing business is a graft—a disgrace. My neighbor paid \$21.00 when he should have paid \$5.00."

In another article you go into considerable detail about

the theft of some plumbing fixtures and quote your Chief of Police as saying "I believe that the plumbers are responsible for much of the thieving."

You also quote A. P. Nichols, of the Kansas City Real Estate Exchange, as saying "I believe much of the plumbing is stolen by thieving plumbers. The work is done expertly and the cutting is neat and clean."

We do not believe that you would make similar statements or allow others to be quoted in such statements concerning the bankers, physicians or other leading business men of your community. You would not allow the manufacturers or any other body of merchants to be ridiculed and vilified in the columns of your paper.

The plumbing business and those engaged in it have been the butt of too many newspaper jokes and caustic comments. You, yourself, realize undoubtedly, the important place in the present order of things, occupied by the plumber. Without him cities would be filled with contagion and disease and modern comforts would be almost unknown.

We feel the time has come when the plumbing business should receive from the public and the press the consideration it deserves. Your paper has the opportunity of making the trade better or doing it harm.

We hope you will decide to stand for the advancement of such an indispensable business.

We have not yet had the courtesy of a reply to our communication, but we feel that the editor will wish to exercise a stricter censorship over his columns in the future.

This incident brings to mind one that occurred a year or two ago at Decatur, Ill. The Decatur Herald printed a communication from a citizen who protested against paying a certain sum for a water meter installed at his home, claiming that in Texas he had been able to buy the same meter for about one-third the Decatur price.

The master plumbers at once got together, called on the editor and compelled him to print an explanation, showing that in Decatur the charge was for the meter and installation, while in the other case the price was for the meter only.

Editor Hardy still vividly recalls the incident, and recently assured the writer that never again would derogatory statements respecting the plumber find space in his paper.

Men: There's just one way to overcome such practices. Get together, insist upon a retraction of such statements, and the editor won't forget again.



# Water—Its Properties and Practical Uses

## IV. — The Hydraulic Ram and the Principle on Which It Operates, Told in a Simple and Most Interesting Way.

By F. W. TOWER

### The Hydraulic Ram.

This machine is employed to raise water to a point higher than the source of supply.

It is chiefly used when a large flow of water with a low fall is obtainable, and raises a part of the water that operates it.

No other power is required except that afforded by the inertia of a moving column of water.

With a given supply of water under a great fall, the ram need not be as large as for the same quantity under a low fall.

When large quantities of water are to be raised, it is better to increase the number of rams, in preference to having one of very large capacity.

The incompressibility of water is made use of in the operation of the hydraulic ram.

The equipment essential to operate satisfactorily consists of a reservoir, a drive pipe and the machine, with its proper valves.

The *storage reservoir* may be fed from a spring or brook with an ample supply assured.

The *drive pipe* is connected to the ram from the reservoir.

The *drive pipe* must be of such length that water in it will not be forced back into the reservoir when the water valve closes, which *will* occur if the drive pipe is not large enough.

The *drive pipe* should be inclined perfectly straight, except for a slight curve where attached to the ram.

The *drive pipe* at the reservoir should be provided with a strainer, and low enough in the water to avoid the entrance of air.

The *drive pipe* must be absolutely airtight.

The *drive pipe* should be twice the diameter of the delivery pipe, and usually not less than 25 feet in length, to obtain good working results at the valves of the ram.

The valve called the impetus or dash valve is connected to the ram from the reservoir.

The valve slides freely in a guide and is provided with locknuts to regulate the distance the valve can fall below the seat.

When the water is first turned on, the impetus valve is open and the water flows freely through its seat.

As the flow continues the velocity of the water in the drive pipe will increase until the upward pressure against the impetus valve is sufficient to force the valve to its seat.

The actual closing of the valve takes place very suddenly, and the momentum of the column of water which was moving with an increasing velocity through the drive pipe, will, very rapidly, force some water through the air chamber valve into the air chamber.

Immediately after this, a rebound takes place, and for a short interval the water flows back up the drive pipe and tends to form a vacuum under the air chamber valve; this opens the impetus valve and admits a little air, which accumulates under the air chamber with the next shock.

This air keeps the air chamber constantly charged; otherwise, the water being under a greater pressure in the air chamber than it is in the reservoir, would soon absorb the air in the air chamber and the ram cease to work until the chamber was recharged with air.

The rebound also takes the pressure off the under side of the impetus valve and causes it to drop, when the operation is repeated.

The proper working of the impetus valve makes the ram self-acting.

To accomplish this the valve must be heavy enough to overcome pressure against its under side when closed or when the water in the drive pipe is at rest.

Its action thus depends upon an adjusted waste valve.

A steady flow is maintained through the delivery pipe, due to the pressure of air in the air chamber; this air also acts as a cushion when the air chamber valve closes, and prevents undue shock to the parts of the ram.

The air chamber should not be allowed to become waterlogged, as the valve without an air chamber would cause a violent shock at each stroke, eventually causing the destruction of the piping about the ram.

The height to which water can be raised depends upon the weight of the impetus valve and the velocity of the water in the drive pipe.

The relative proportion between the water raised and wasted is dependent entirely upon the relative height of the source of supply above the ram, and the elevation to which it is required to raise it, as the longer the pipe through which the water has to be forced, the greater the friction to be overcome and the more power consumed in the operation.

The greater the height the more waste.

The ram should be set to allow waste to readily drain or the water backing up would stop the ram.

It may be safely calculated that about *one-seventh* part of the water can be raised and delivered at an elevation above the ram five times as high as the fall from the reservoir through the drive pipe.

Or, *one-fourteenth* can be raised and discharged ten times as high as the fall, and in that proportion as the rise or fall is desired.

The efficiency varies with the ratio of the rise of the discharge to the fall of the drive pipe.

To obtain the highest efficiency with any fall, the impetus valve should be adjusted to close at the instant the water in the drive pipe has attained its greatest velocity.

An overflow at the source of supply should be arranged to maintain an equal pressure, otherwise the weight on the waste valve will vary and the ram will not be self-acting.

As the impetus valve is set to certain pressure, any variation at the head will cause the valve to remain closed, if in excess.

To overcome this surplus of energy and cause the piston to overbalance the weight of the water column, a spring may be attached, or an open stand pipe on the drive pipe will also remedy this difficulty.

The top of the stand pipe must be above the water level in the reservoir or the water will be wasted.

At the instant the impetus valve closes the impact from the flowing water produces a shock which opens the valve at the bottom of the air chamber.

When the valve inside the air chamber closes, the pressure of the air forces the water out, and up the discharge pipe to the point of delivery.

The diameter of the delivery pipe is usually half the diameter of the drive pipe.

The highest efficiency of a ram is obtained with the specified length (25 ft.) and size of drive pipe when the weight and length of stroke of the impetus valve are properly proportioned.

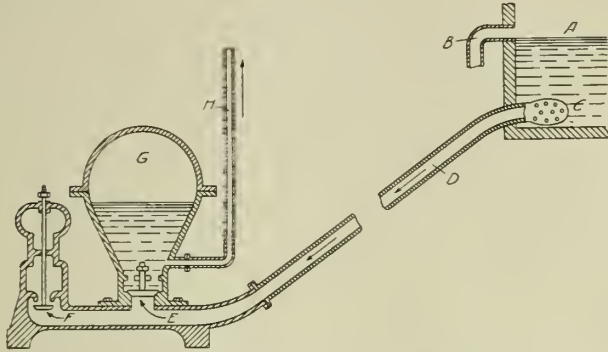


Fig. 1. Showing How Hydraulic Ram is Usually Installed.

#### Description.

- A. Reservoir.
- B. Overflow to maintain constant level.
- C. Strainer to prevent grit and leaves entering drive pipe.
- D. Drive pipe to ram.
- E. Air chamber valve.
- F. Impetus or dash valve.
- G. Air chamber.
- H. Delivery pipe to building.

If desirous of obtaining the following amount of water per minute the size of drive pipes and discharge pipes are as follows:

Drive pipe.	Delivery.
3 ft. $\frac{3}{4}$ in. discharges	2 gal. through $\frac{3}{8}$ in. 1 lb. pipe
4 ft. 1 in. discharges	4 gal. through $\frac{1}{2}$ in. $1\frac{1}{4}$ lb. pipe
5 ft. 2 in. discharges	14 gal. through 1 in. $3\frac{3}{4}$ lb. pipe
16 ft. 4 in. discharges	75 gal. through 2 in. 7 lb. pipe

The drive pipe is usually iron because the tensile strength is greater than lead.

If lead pipe is used the *A* grade or *strong* weight should be used.

Anything larger than 2 in. should be iron.

The discharge pipe of lead should be of the *B* grade for sizes of 50 ft. or less, and of the *A* grade for sizes between 50 and 100 ft.

Economy in the expense of repairs suggests that no greater fall should be applied for propelling the ram than is sufficient to raise the required amount to the place of use.

The ram is applicable when no more than 18 inches can be had, yet the greater the fall the more powerful the operation and the higher the water may be conveyed.

To determine the suitable size of ram to be employed in a given case the following facts should be known:

1. *Flow of water in gallons per minute.* This may be determined by noting the time required to fill a vessel of known capacity.
2. *Vertical fall in feet.* This is the difference between the level of the surface of the water in the source of supply and the lowest point of ground within a reasonable distance, say 100 feet.
3. *Distance in which fall is obtained.* This applies to the drive pipe from source to machine.
4. *Vertical height to which water is to be raised above dam.*
5. *Distance water is to be raised.* This is the difference between the level of the location of the ram and the lowest point to which the water is to be delivered.
6. *Number of gallons required per day.* Several rams

may be set so as to deliver into one discharge pipe, each having a separate drive pipe.

#### Double-Acting Ram.

It sometimes happens that the supply of water for domestic use is limited, and if another supply is at hand that may be used to operate the ram, *one* may be used for power, and the purer water may be delivered for domestic use.

A ram is now designed to accomplish this result, and by properly adjusting the relative flow of the water used as power and the water to be delivered, the ram may be made to deliver only the purer water.

The cost of power, attendance and maintenance being practically nothing, and the first cost very low, it is evident that no type of machinery can compete with the ram when conditions are favorable.

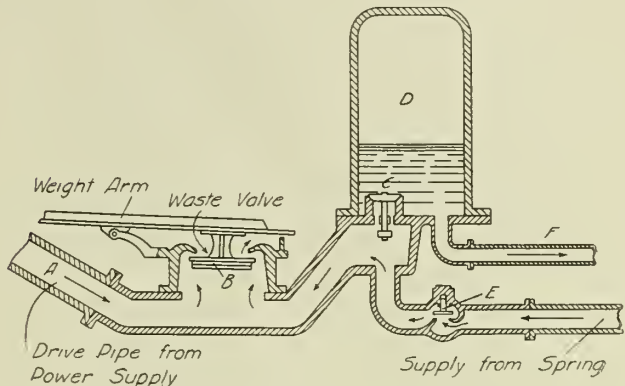


Fig. 2. Double-Acting Hydraulic Ram.

#### Description.

- A. Drive pipe from brook or pure water.
- B. Impetus valve.
- C. Air chamber valve.
- D. Air chamber.
- E. Check valve from spring or pure water.
- F. Pipe to building.

Operation: Each time the impetus valve closes, a rebound takes place, and the vacuum, made under the air chamber valve, allows the spring water to enter the chamber and the check valve on the spring pipe falls.

This machine being automatic renders it the most important and valuable apparatus yet developed in "hydraulic" for forcing a portion of a running stream of water to any elevation proportionate to the fall obtained.

#### AUSTIN AND OAK PARK MASTER PLUMBERS' BALL.

On Wednesday evening, April 2nd, the Austin and Oak Park Master Plumbers' Pleasure Club will hold its third annual ball at Library Hall, Waller Avenue and West Lake Street. An invitation has been extended to master plumbers and families throughout Chicago, and the committee requests that tickets be arranged for by one o'clock on that date. The committee on arrangements is composed of Chairman Alex A. Shannon, W. C. Schneider, Wm. Wagner, T. Geo. Irving and Wm. Gawne, jr. The affair will be an informal one.

Ravenna, O.—R. E. Fennell has moved his plumbing establishment to the Coit block.

Utica, N. Y.—Peter B. Smith has opened a plumbing establishment at 134 Conkling Avenue.

Jackson, Mich.—Frank McMahon has opened a plumbing and heating establishment at 11 Cooper Street.



# New York State Convention at Buffalo

The Meeting on March 11 to 14 One of Most Successful in Association's History. See Frontispiece for Group of Delegates

**I**T was a large and representative body of men that came to Buffalo to attend the annual convention of the New York State Association of Master Plumbers, on March 11 to 14. The affairs of the organization have been administered during the past year by able, courageous officers and the progress made during their term in office was largely the cause of such good attendance at this annual meeting.

Headquarters were established at the Hotel Iroquois and as early as Sunday evening the lobbies of that hostelry began to take on the appearance of convention business. The building was taxed to its utmost and the reception committee deserves praise for the systematic manner in which it cared for each incoming delegation.

On Monday, March 10, the executive committee of the association went into executive session and preliminary business, incident to the opening of the convention on the following day, was transacted and completed.

## Tuesday Morning Session.

The sessions of the convention were held in the local association rooms in the Builders' Exchange and it was



Frank J. Fee, President of the National Association, Isaac J. Brown, Past State President, and Frank B. Lasette, Retiring State President.

promptly at 10:30 a. m. on Tuesday when President Frank B. Lasette, of New York City, brought the opening session to order. He was warmly received and in return welcomed the delegates and members to this annual meeting.

In the absence of the mayor, who regretted his inability to be present, the members were welcomed to Buffalo by his secretary, John Sayles, who spoke most interestingly of that city and the part its master plumbers have played in its progress.

The chair then presented Frank J. Fee, of New York City, president of the National Association of Master plumbers, who received an enthusiastic welcome. President Fee reviewed briefly the affairs of the national association since its last annual convention and particularly dwelt on the good work which had been done along organization lines. Mr. Fee came to Buffalo with the New York City delegation and remained throughout the deliberations.

It was interesting to see seated on the platform such a large number of past presidents of the state association. President Lasette called on them all for a few remarks and each one suitably responded. They were Chas.

Geiger, Frank L. Beyer and Charles Huck of Buffalo; Isaac Brown and B. F. Donohue, of New York City; Fred. Fladd, of Rochester; John Moran and John E. Dugan, of Albany, and B. Joseph O'Donnell, of Syracuse.

In order that no erroneous statements should reach the local press, the chair appointed the following gentlemen to constitute a press committee: T. J. Kavany and Geo. H. Drake, of Buffalo.

In order that the credentials of all authorized delegates could be acted upon, the following members were selected as a committee on credentials: Louis Yauchzi, of Rochester, chairman; Thos. F. Nolan, of Albany, and George H. Creasy, of New York City.

Just at this stage in the proceedings, Isaac J. Brown, of New York City, who was seated in the back of the room, arose and asked to be heard. He feelingly said that the Greater New York association had delegated him, in its behalf, to convey to President Lasette its sincere good wishes and, in partial recognition of his able administration, to present to him a token of its esteem. This was in the form of a handsomely engraved gavel. President Lasette immediately placed it in active use and expressed his gratitude in well chosen words.



Four Members of "Trust Fund Committee"—A. C. Eynon, Canton, O., Past Nat. President and Chairman, D. H. Roberts, Cleveland, O., Jere Murphy, New York City and James S. Cassioy, Cambridge, Mass.

John Kavany, chairman of the local entertainment committee, was called to the platform and interestingly reviewed the plans of the local association for the entertainment of its visitors.

Adjournment was then taken until 2 p. m., in order that a group photograph could be made of the members and their friends, which we show in our frontispiece.

## Tuesday Afternoon Session.

The report of the apprenticeship committee was read by its chairman, J. W. Sands, of Brooklyn, and was heartily received. It laid stress on the importance of encouraging home educated boys to take up the trade of plumbing, at the same time exercising care to allow to continue only those boys who proved apt and displayed some interest and enthusiasm in their work. It dwelt particularly on the necessity of instructing the apprentice, as well as the journeyman, in practical business methods, in order that they would be competently equipped to enter business as masters, should they desire to do so. This question brought forth some discussion and it was the spirit of the convention that too great im-

portance could not be attached to this apprenticeship question.

A committee on resolutions was then appointed by the chair to act upon several resolutions which local associations throughout the state had submitted for consideration. This committee consisted of: B. F. Donohue, of New York City, chairman; Thos. F. Nolan, of Albany; T. M. Hennessy, of Oswego; George Cropper, of Binghamton, and George Wittig, of Utica. The resolutions referred to were read by Harry Barehan of Rochester, and the following were, by vote, adopted:

From the Albany association—"Resolved, That the New York State Association of Master Plumbers go on record as being in favor of all pending or proposed legislation which aims to improve the sanitary condition of factories, public buildings, tenement houses, public parks and amusement resorts, and that, the local associations be urged to take an interest in this work and bring their influence to bear upon the legislators of their respective districts, that the success of such laudable legislation may be assured."

From the Albany association—Resolved, That the practicability and advisability of organizing a Master Plumbers' Mutual Liability Insurance Company with a view to supplying the members of the New York State Association of Master Plumbers with such insurance protection at cost, be investigated by the incoming executive board, and its findings be communicated to the local associations at as early a date as possible, for their consideration and action."

From the New York City association—"Resolved, That the publication of the official organ of the state association, known as the New York State Plumber, be abolished and that the office of executive clerk of the state association be dispensed with."

The following members were selected to constitute the auditing committee: John Hopkins, of New York City, chairman; Joseph Gleason, of Rochester, and Frank L. Beyer, of Buffalo.

The annual report of President Frank Lasette was then read and received warm applause. It follows.

#### President Lasette's Annual Report.

By the will of the Supreme Being we are again assembled to take under advisement problems which have engaged our attention for the past year and to devise ways and means through legislation and co-operation to carry on the destiny of the New York State Association.

I will touch briefly on the business transacted through the executive office, and if there are some matters that do not meet with your approval, I hope you will overlook them.

The various matters, under separate headings, are as follows:

#### In Memoriam.

The hand of fate, since our last convention, has been

busy in our ranks, from the report received at the executive office.

On June 5, 1912, William Tobin, past state president, and member of the Syracuse local, died in that city, and by resolution of the Executive Board, a letter of condolence was mailed to the bereaved family.

On December 26, 1912, T. A. Hill, past national president, state secretary, and member of the Manhattan branch, departed from this life. The State Association of Master Plumbers was well represented during the services. A resolution was adopted sending a letter of con-



Walter H. Caines, Buffalo, Newly Elected President New York State Master Plumbers Association.

dolence to the bereaved family, which letter had the unanimous endorsement of the entire New York State Association.

#### Executive Committee.

There were three meetings of the executive committee held during the past year. The first meeting was held in the city of Troy, on March 14, 1912, the day following the adjournment of our last convention. The second meeting of the committee was held in the city of Buffalo on January 9, 1913, and the third meeting took place in the city of Buffalo, on March 10, 1913.

The meetings were graced by the presence of all the members of the committee and the executive officers, and all matters of importance brought before them were properly disposed of.



Philip Eicke and Philip E. Brady of New York City, M. J. McGrath, Brooklyn and J. F. Griffin, New York City.



J. B. Green, Thos. J. Kavany, J. J. Bresnahan and J. W. Cline, Buffalo.



A. C. Kranichfeld, New Secretary and Member Arrangement Com., Thos. J. Kavany, Chairman and Geo. H. Drake, Pres. Buffalo Assn. and Member Arrangement Com.



### Standing Committees.

I endeavored to select men of high standing in the trade in the communities which the members of the respective committees resided.

### Legislation.

In all matters pertaining to the affairs of our association I have endeavored to interest the respective members and have them confer with the chairman of the legislative committee, Timothy E. Kerwin, of the city of Albany, in order that they would receive information in respect to all bills, and the action taken on bills, endorsements, rejections, etc., from the different locals throughout the state of New York. Your legislative matters have received the entire and undivided support of the legislative committee, and your executive officers have instructed the legislative committee with reference to the proper course to pursue thereon.

### Visitations and Meetings.

On May 15, 1912, the Borough of Richmond, Staten Island, was visited and the local there was reorganized.

On May 16, 1912, the president and secretary visited

literature and constitutions to the number of 15,000, besides other necessary correspondence.

Finally, I believe the time is opportune for me to express my heartfelt thanks to the officers and members of the executive committee and the members of the standing committees of the association for the advice and co-operation I have received from them at all times when called upon during the past year; and also to thank the members of the New York State Association of Master Plumbers for courtesies extended and the co-operation I have received from them.

At times during the past year it has been necessary to assign members to special duties; and in each and every case they accepted the duties involved therein with good grace; and it is such expressions as these that gives your presiding officer an incentive to forge ahead in connection with the duties connected with his office.

The report of Vice-President Walter H. Caines, of Buffalo, was read by that gentleman and showed progress. It was enthusiastically received.

The report of Secretary John J. Hannegan, of New York City, showed a good gain in membership and a substantial balance in the treasury.



Group of Delegates from Albany.



Frank Habeck of the Bronx Delegation.



Some of the Troy Delegation.

the city of Yonkers, where they attended and addressed an open meeting.

In June, 1912, the president and secretary visited New Rochelle, Richmond and White Plains.

On September 3, 1912, the president and secretary reorganized the Kingston local on a visit to that city.

On October 9, 1912, the president and secretary made a tour through the state, and addressed meetings at Buffalo; addressed the executive officers at Syracuse and the executive officers at Rochester. Open meetings were held at Watertown and Oswego; and a meeting of the executive officers at Albany; there was also an open meeting at Oswego and an open meeting at the city of Utica. They returned to New York city on October 22, 1912.

On November 21, 1912, the president and secretary visited the city of Elmira, and addressed an open meeting there on November 23rd. Also visited Binghamton, and addressed an open meeting there on December 18, 1912. A second visit was made to the city of Utica and an open meeting addressed there; there was also an open meeting held at Albany in the month of February.

A new local was formed at Ossining during the past year.

### Correspondence and Communications.

The communications received and letters and pamphlets sent out from headquarters during the past year have been enormous. We have sent out 2,461 communications,

Through motion it was decided that both the report of the secretary and the treasurer be referred to the auditing committee and that a printed, itemized account of the association's financial status be distributed among the delegates before the convention adjourned.

The report of the sanitary committee, through its chairman, Andrew H. Brown, of New York City, received applause. It follows:

### Officers and Delegates Present.

The report of the credential committee, through its chairman, Louis Yauchzi, of Rochester, showed the following authorized delegates and alternates elected to applause.

#### Officers.

President, Frank B. Lasette, New York; Vice-president, Walter H. Caines, Buffalo; Financial and Recording Secretary, John J. Hannegan, New York; Treasurer, Charles A. Campbell, Watertown; Retiring President, John H. Moran, Albany. Delegates-at-Large—T. E. O'Brien, Brooklyn; Frederick Le Valley, Elmira; John F. Knaupp, Troy; J. R. Sheehan, Schenectady; George L. Brucker, Utica; Louis J. Yauchzi, Rochester.

#### Past State Presidents.

Past State Presidents—Charles Geiger, Buffalo; Charles B. Huck, Buffalo; Frank L. Beyer, Buffalo; I. J. Brown, New York; B. F. Donohue, New York; John H. Moran, Albany; John E. Dugan, Albany; B. Joseph O'Donnell, Syracuse; Frederick E. Fladd, Rochester.

#### Delegates.

Albany—Albion J. Eckert, Thomas A. O'Malley, Frank F. Schimpf, Joseph P. Maguire, John J. Britt, James H. Moody. Al-

ternates: William H. Brannin, Jacob Noord, H. Whitbeck, William H. Wareing.

Brooklyn—D. J. Donovan, Thomas E. O'Brien, James F. Keenan, Edward J. Belford, John J. Dixon, M. F. Gleason, John W. Sands, Thomas F. McEnaney, James Jarcho, Edward Macdonald, M. J. McGrath, Martin Hayden, Louis Kayfetz, A. P. Byron, George F. Tracy, Louis Groferer, Harry Valetsky, Louis Frisse.

Queens Branch—George Gross, Philip Scott, Joseph Repperger, George Hemmert, Alexander Williams, John F. Rogers, Jacob Moehn, William Weidemann, George M. O'Connor, Robert M. O'Connor, George C. Zehner, N. Nehrbaur.

Binghamton—George Cropper, R. J. Malane, William Liddell.

Lockport—Charles E. Carnall, Neil Davenport.

Elmira—Frederick Le Valley, Robert E. Bentley, H. D. Elliott.

Buffalo—Joseph Bresnahan, George E. McEvoy, Louis Schultz, James Wilson, George H. Drake, Charles Geiger, Daniel Lund, F. M. Lochnicht, Joseph D. Griffin, H. D. Luther, William Dechert, Charles B. Huck, Frank L. Beyer. Alternates: Daniel Lund, Charles A. Smith, Thomas J. Kavany, John B. Green, William W. Ebbe, John Dellinger, George D. Clucas, A. D. Gordon.

New York—J. L. Murphy, August Hansen, A. H. Brown, G. H. Creasy, J. A. Rossman, E. J. Brady, J. Hopkins, C. A. Walsh, I. J. Brown, James Lawlor, Edward Hurley, J. J. Delaney, Phil Brady, B. W. Rod, J. D. Gunn, H. Cuiskald, I. O. Shumway, James Smith, John Renahan, W. A. Treacy, T. J. Tuomey, E. Gluckman, H. Taylor, Phil Eich, H. B. Devoe, Frank J. Fee, Charles Murphy, J. J. Hannegan, F. B. Lasette, J. Jarcho, E. J. Renahan, J. F. Griffin, C. Cotama, F. J. Weisberg, W. J. Fowler, H. A. Newman, L. Moechen.

Bronx—Joseph Theiss, T. F. J. Moffett, J. J. Foley, F. Weber, Peter Schweickert, W. J. Flynn, C. J. Gleason, S. H. Welch, D. Durie, Walter Wilcox, J. V. McEvily, H. Saltzmann, J. J. Hogan, Daniel Cash.

Syracuse—August Schall, Rhoda McGraw, E. B. Dunkerton, Michael Burke, T. X. Donovan, P. F. McDonald, William Drexler, I. G. Ward. Alternates: Arthur Van Denburg, Charles A.

With an idea of securing a better understanding between the master and journeyman plumber, Thos. F. Nolan, of Albany, invited an open discussion on this important problem. The question of closer affiliation between these branches of the craft was strongly urged by a great majority of the members present as, they thought, only through such close co-operation could the best results for all concerned be secured.

Present at this session, as an invited guest, was D. H. Roberts, of Cleveland, Ohio, a former member of the board of directors of the National Association of Master Plumbers, and he was at this time presented to the convention. While Mr. Roberts came to Buffalo as a member of the "Trust Fund" committee he, at this period, spoke interestingly on national association affairs and urged the members to be loyal to that organization and to do all in their power to uphold the dignity of the craft.

James S. Cassidy, Cambridge, Mass., also a member of the "Trust Fund" committee, spoke of the necessity and importance of co-operation in all organization work, as, only through loyalty could the best results be secured.

Through motion by Jere Murphy, of New York City, a rising vote of thanks was given the legislative com-



Delegates From Rochester.



Delegates From Greater New York.

H. Kienzle, John Oswald, F. W. Soper, John J. Reidy, E. J. Houde.

Utica—George L. Brucker, Louis Schar, J. B. Witte, W. F. Cantwell, Thomas Walsh. Alternates: Charles Barber, H. J. Brandeles, Charles S. Breen, W. Draper.

Niagara Falls—P. W. Matthews, Charles F. Woolcock, P. J. Davy, Joseph G. Riley.

Schenectady—C. F. Shank, Floyd Hedden, Edward Van Loon, John R. Sheehan. Alternates: Fred Brown, James Dooney, A. J. Kalbreau.

Troy—John F. Knaupp, Harvey J. Ryan, Arthur A. Dunn, James Kennedy. Alternates: Justin H. Pfau, Lawrence J. McNamara, Jr., Joseph B. Delaney.

Watertown—W. S. Madill, F. B. Wilson, A. C. McCrady. Alternates: H. W. Rogers, W. H. Littlefield, James Lewis.

Rochester—Joseph B. Gleason, Harry Bereham, Anthony Heinze, Edward Snyder, P. J. Donovan, R. W. Saunders, J. C. Louth, George H. Caffrey, F. Rossney, Jos. Dunne, A. G. termeir, J. Walker, T. Shannon, T. Chissell, A. Wirth.

In behalf of the Utica association, Joseph Wittig, of that city, conveyed to the state organization at this time the gratitude of his fellow members for the able assistance and co-operation the state officers gave them in their local organization work. He reported that their ranks had been badly shattered, through lack of enthusiasm and co-operation, and that it took this outside assistance to bring the Utica association back to its former helpful and healthy condition. He reported that they have increased their membership from 22 to 33 members and that there is now in Utica only one shop that is not affiliated with them.

The convention now adjourned, to reconvene in executive session on Wednesday morning.

### Wednesday.

Executive session prevailed throughout the day and it was 5 p. m. before open session was declared.

mittee of the state association, the chairman of which is T. E. Kerwin, of Albany, for the able work it has done during the past year. President Frank J. Fee, of the national association, also took opportunity to express his gratitude for the good it had accomplished.

A rising vote of thanks was given to the members of the "Trust Fund" committee of the national association, for its earnest and faithful work in the promotion of that project.

### Officers Elected.

A recess of five minutes was now declared and immediately the chair appointed the following members as tellers for the election of officers, which followed: Andrew H. Brown, of New York City, judge; Thomas F. Nolan and Frank L. Beyer. The election resulted in the following choice:

President, Walter H. Caines, Buffalo; vice-president, George Brucker, Utica; secretary, A. C. Kranichfeld, Buffalo; treasurer, Chas. A. Campbell, Watertown.

Delegates-at-large, to national convention: James H. Doody, Albany; J. R. Sheehan, Schenectady; John F. Knaupp, Troy; John J. Hannegan, New York City; T. E. O'Brien, Brooklyn; Frederick Le Valley, Elmira.

Considerable interest was manifested, as usual, in the selection of the city for the next annual convention of the association. Benjamin Wittig, of Utica, in behalf of his associates, arose and extolled the merits of his city. He was armed with letters of invitation from the Utica Chamber of Commerce, from the mayor and other civic



bodies of that city and these offers of good will proved irresistible.

Through motion by Fred Fladd, of Rochester, it was decided that the incoming president should choose a committee to select suitable gifts to be presented to the retiring officers for the faithful and intelligent manner in which they conducted their administration.

Votes of thanks were given to the retiring officers and members of the executive committee, to the members of the Buffalo association for the splendid reception accorded its visitors, and to the trade press for its presence at this meeting.

Representing the trade press throughout the sessions

members who had arrived, to attend the Garden Theatre. The bill proved to be an excellent one and was heartily enjoyed.

On Tuesday evening the members attended Shea's Theatre in a body, where some exceptionally good vaudeville was seen.

#### Banquet Wednesday Evening.

Great preparation had been made for the banquet at the Iroquois Hotel on Wednesday evening and covers



Retiring President Frank B. Lasette, New York City. Past President John H. Moran, Albany.

of this committee were: A. R. Dumond, John E. Dugan, and B. Joseph O'Donnell, of the "Plumbers' Trade Journal"; W. A. Scott, of the "Metal Worker"; W. G. McCormick, of the "Merchant Plumber and Fitter." E. De Forest Winslow, O. T. Garson and L. N. Clapp, of "Domestic Engineering."

#### Entertainment.

No effort was spared on the part of the Buffalo association to make this meeting one long to be remembered by the visiting guests. Plans for their entertainment were carefully made and systematically carried out. The members on the committee of arrangements were: John J. Kavany, chairman; George H. Drake, A. C. Kranichfeld, Thomas J. Kavany, George D. Clucas, Albert J. Batt, Wm. F. Waldow, Walter H. Caines, James J. Bresnahan and Chas. A. Smith.

On Monday evening arrangements were made for those



A. C. Eynon, Past National President and Honored Guest at New York Convention.

were laid for 275. An excellent orchestra had been engaged for the occasion and with it some very clever monologue talent. This happy combination offered a "cabaret" entertainment which kept the guests in continual good humor. The menu was splendidly served and the choice of dishes reflected credit on the chef of the Iroquois. As toastmaster of the evening, Geo. H. Drake, president of the Buffalo association, acquitted himself with credit. His remarks were timely.

The speakers were loudly applauded and their topics were all of vital interest to the master plumber. The ball was started rolling by John Sayles, secretary to the mayor of Buffalo, who humorously dwelt on the comparative merit of the cities of the Empire state. He was followed by Herbert A. Meldrum, who spoke in behalf of the Buffalo Chamber of Commerce. The Hon. Edward P. O'Malley was then presented and gave a graphic anal-



J. H. Harper and O. W. Gleason of the Peerless Selling Co., Evansville, Ind.

C. W. Fell of W. A. Case & Sons Mfg. Co., Buffalo, F. G. Newton, representing United States Sanitary Co., Pittsburgh, James M. Teahen, Detroit, and G. E. Porter, with W. A. Case & Sons Mfg. Co.

J. V. Nachant, Sales Mgr. Buffalo Radiator Co., Buffalo, N. Y.

ysis of the New York state sanitation laws. The honored guest of the evening, Frank J. Fee, president of the National Association of Master Plumbers, was received with loud applause. He spoke most interestingly on national association affairs and his remarks were noted carefully.

Fred Zander, of the Zander Plumbing Supply Co., Buffalo, was presented and proved his popularity among the New York state members by the hearty reception which he at this time received. He used as his theme "The Kaiser" and the part which that monarch supposedly played in the recent Turkish war. His recitation was forceful and, while it did not receive the entire approval of a ferocious German gentleman present in the room, Mr. Zander, in the face of his handicap, conducted his recitation to the end.

Frank B. Lasette, the retiring president of the New York State Association, was appropriately presented and beseeched the members to give their loyal support to the incoming administration as, he stated, that only through such close co-operation could the welfare of the state organization be promoted.

Mr. Lasette was followed by A. C. Eynon of Canton, Ohio, past president of the National Association, and an honored guest on this occasion. Mr. Eynon has gained a reputation as an after-dinner speaker and his remarks were closely followed at this time. He spoke forcefully of the position the master plumber occupied today in the community and urged his fellow workers to do all in their power to make his position even greater than it is in civic and business life.

Much interest was centered in the remarks of the newly elected president of the state association, Walter H. Caines, of Buffalo. He pledged his loyalty to the local, state and national association and hoped that his fellow members would support him staunchly in his work, in order that his administration would result in much good.

The plans of the entertainment committee for Thursday were carefully laid and were participated in by fully 170 members. Special arrangements had been made to convey the visitors to Niagara Falls and those who had never seen their beauty were especially pleased at this opportunity. Auto cars and carriages were pressed into service and the visit to the Gorge, as well as the trip around the islands, proved particularly interesting. Dinner was served at 4 p. m. at the Hotel Imperial and Proprietor Greenwood outdid himself in his endeavor to please. So sumptuous was the feast, in fact, that it was

generally conceded that, after it, every one present could "fast" for a week without embarrassment. The plans for this day proved a fitting finale to a week of interesting enjoyment.

#### Convention Jottings.

Walter P. Deutsch, of the Empire Brass Mfg. Co., Cleveland, O., drove up to the Iroquois on Monday behind a span of jet black horses. His secretary accom-



George H. Drake, of Buffalo, Member Arrangement Committee.

panied him and, included in the cargo, was a flock of "Spring Drapery" of recent vintage, with which Walter graced the assemblage.

R. P. Singie, representing the Nopack Brass Mfg. Co., of DuBois, Pa., installed his company's basin cocks in the public toilet room of the Iroquois, and these goods, seen in actual operation, were the subject of commendable comment.

E. N. Cokefair, manager of the New York office of the Magee Furnace Co., Boston, Mass., came to Buffalo with the New York City delegation. Mr. Cokefair has become



A. A. Turner, Representing D. A. Donovan, Auburn, N. Y.

H. P. Baldwin, With Quinn Mfg. Co., Detroit.

The Inimitable Otto Hahn, of Louis Lipp Co., Cincinnati.

W. H. Clifford of C. T. Ham Co., Rochester.

E. N. Cokefair, Mgr. N. Y. Office Magee Furnace Co.



a confirmed convention goer and his presence at the meeting was gladly noted.

W. G. Titus, familiarly known through his long association with the Trenton Potteries Co., Trenton, N. J., happened to be in Buffalo at this time and took an opportunity to greet many of his friends among the New York state trade.

John M. Weekes, accompanied by Jesse Williams, of John Weekes & Son Co., Watertown and Syracuse, N. Y., came into town on Tuesday and on that night gave a 15,000 ball pool exhibition at the Iroquois before an enthusiastic multitude of admirers.

Harry Walker, of the Peerless Co., dropped off at Buffalo on Tuesday and received some royal welcome. He remained throughout the sessions of the convention.

The Quinn Mfg. Co., Detroit, Mich., had an interesting display of its closet combinations and ground key work in one of the parlors at the Iroquois, which was presided over by H. P. Baldwin. This gentleman consistently and

took every opportunity to assist the Buffalo master plumbers in welcoming their out-of-town guests.

The Edward J. Rice Mfg. Co., Rochester, N. Y., makers of the Rice closet bends, delegated its president, O. W. Rice, to be present at this meeting, and in behalf of its product he spoke most interestingly.

The inimitable Otto Hahn, from the Louis Lipp Co., Cincinnati, O., made a special trip to Buffalo to greet his army of friends among the members. Otto has begun to be looked upon as a "war horse" among convention goers, and it seemed very natural to have him at this gathering.

Charles Waldow, for many years a master plumber of prominence in Buffalo and now president of the Buffalo Plumbing Supply Co., of that city, took the opportunity to assist his former associates in caring for the comfort and entertainment of their visitors.

Harry S. Welsh, manager of the heating department of Samuel Sloan & Co., Rochester, N. Y., came to Buffalo in company with Wm. F. Debendorf, also of that city,



Frederick Le Valley, Elmira,  
Elected Delegate-at-large to  
National Convention.



James H. Doody, Albany, Elected  
Delegate-at-large to Na-  
tional Convention.



A. C. Kranichfeld, Buffalo, Newly  
Elected Secretary State  
Association.

persistently featured Quinn Quality Products, and as a remembrance for his company's many friends, distributed useful pocket rules.

A. A. Turner, representing D. A. Donovan, Auburn, N. Y., extolled the merits of that manufacturer's "Dad" pipe hangers. Mr. Turner is on his maiden trip in the selling field and acquitted himself at this time with much credit.

In behalf of the United States Radiator Corporation, Detroit, Mich., Cecil W. Farrar, manager of this company's Buffalo branch, was present throughout the week's proceedings.

The Peerless Selling Co., Evansville, Ind., delegated its enthusiastic representatives, O. W. Gleason and J. H. Harper, to care for its interests. Pursuant with this company's previous custom, an attractive exhibit of its closet combinations was to be seen in one of the parlors at the Iroquois. This "seat operating" combination created much interest and was the subject of approving comment. All visitors to the "Peerless" headquarters were supplied with the famous "Katy Casey" cigars.

Wm. J. Quigley, of the Gurney Heater Mfg. Co., Boston, Mass., greeted many of his friends at this meeting and was warmly welcomed.

E. L. Reinhard, recently appointed manager of the Buffalo branch of the American Radiator Co., Chicago, Ill., and Carl P. Wright, assistant manager of this branch,

and were enthusiastically greeted by their friends present from all over the state.

An interesting exhibit was made in parlor E, at the Iroquois, by the Sanisteel Co., Buffalo, N. Y., through its manager, Earl G. Campbell. This company had on display its "all metal" combinations, which taxed the skill of many who endeavored to fathom their construction.

The interests of the Zander Plumbing Supply Co., Buffalo, N. Y., were ably presided over by its president, Fred Zander, Fred F. Irish and Earl T. Robinson. These affable gentlemen did much to provide for the comfort of their city's visitors, and as a reminder of their sojourn presented each of them with a "reservoir" pencil.

The Central Foundry Co., New York City, appointed its "tried and tested" gentlemen, J. P. Donohue and F. P. Crotty, to care for its interests, which they did in capable fashion.

C. T. Ham Mfg. Co., Rochester, N. Y., through W. H. Clifford, exhibited "Auto Silent" closet and water-saving devices, and these inventions elicited much interest on the part of those members who inspected them.

James M. Teahen, of "Vitro" closet tank fame, Detroit, Mich., and F. G. Newton, national representative of the United States Sanitary Mfg. Co., Pittsburgh, Pa., happened to be in Buffalo on business and had the pleasure of meeting many of their old friends among the New York state master plumbers.

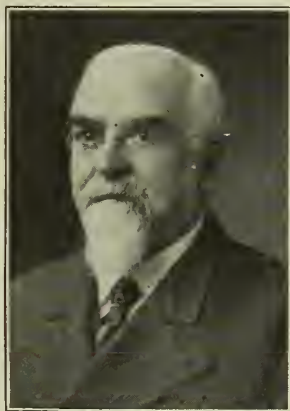
Chester W. Fell, prominently identified with W. A. Case & Sons Mfg. Co., Buffalo, N. Y., C. W. Houghtling and G. E. Porter, also of that concern, shook hands with their friends in the New York state trade, and at all times took every opportunity to make their visit in Buffalo enjoyable.

J. V. Nachant, sales manager for the Buffalo Radiator Co., Buffalo, N. Y., spent considerable time during the convention period in greeting his many friends from among the heating trade present.

#### RICHARD H. WATSON, THE "GRAND OLD MAN" OF THE PHILADELPHIA ASSOCIATION.

**Celebrates Fiftieth Anniversary of the Establishment of His Plumbing Business in Philadelphia.**

Fifty years of active business management, fifty years of success, is the proud record of Mr. Watson. Few men live to have the pleasure of sending out to their many friends and customers, announcements of their completion of a half century of active business, as Mr. Watson did the past week, and the mails are heavy with the congratulations pouring in on him, from his many, many friends and business associates. A beautiful bouquet of fifty roses were sent by the Philadelphia Master Plumbers' Association in honor of the event and as a token of the esteem in which Mr. Watson is held by the members.



Richard H. Watson, of Philadelphia.

MARCH  
1863

MARCH  
1913

Mr. Watson has rounded out his seventy-seventh year and is a remarkably young man in spirit and action. He started at the trade in 1851 sixty-two years ago, and the event being celebrated this month is the fiftieth anniversary as master plumber.

Two of the young men who have learned their trade with Mr. Watson are now officers of the Philadelphia Association, Wm. Boal, also member of Select Council of the city of Philadelphia and Harry Lentz, treasurer of the Philadelphia Association. All of the men employed in Mr. Watson's shop, with one exception, have learned their trade in his shop, and of the three boys carrying off prizes in last year's graduating class of the Philadelphia Trade School, two came from Mr. Watson's establishment. It may be added that Mr. Watson is the originator of the flush closet, the first of this type of closet bowl being made to order on Mr. Watson's specifications.

"Domestic Engineering" joins with Mr. Watson's friends in wishing him many more years of health and good cheer.

#### MORE AGITATION FOR REPRESENTATION ON STATE BOARD.

Active effort will soon be made by the Chicago Master Plumbers' Association toward securing the appointment of one of their number as a member of the Illinois



State Board of Health. A conference of the committee is to be held shortly with Governor Dunne. No member has yet been endorsed for the appointment however.

Chicago newspapers have recently printed expressions from plumbers and others on the subject. "The Chicago

#### PLUMBER FOR BOARD OF HEALTH.

Chicago, Jan. 17.—[Editor of The Tribune.] —In a recent article in Domestic Engineering, the master plumbers' trade paper, I read the views of health officials and others on the proposition of appointing an expert sanitary engineer or an expert master plumber as a member of the Illinois board of health. I also noticed mention of the said proposition in THE TRIBUNE last week.

I am sure that I am voicing the sentiments of the majority of master plumbers of the state when I say that such an appointment would tend toward the greater conservation of the health of the people of this state. Ex-Commissioner of Health Evans voiced the same opinion in the articles I have read on the subject. A MASTER PLUMBER.

—From "The Chicago Daily Tribune."

Daily Tribune" recently published a communication from a Chicago master plumber in this connection, which we take pleasure in reproducing herewith.

Harvard, Ill.—Geo. V. Andrew has taken his brother, Wilbur Andrew, of Magnolia, Wis., into partnership in his plumbing and heating establishment.

Leon, Ia.—C. G. Cline has entered the plumbing business for himself in the building just south of the Leon hotel. Mr. Cline has been employed for a number of years as plumber by Wm. Crichton & Son.



# Indiana State Convention at Indianapolis

Three Day Meeting Mar. 10, 11 and 12, One of Much Profit  
Wm. J. Woolley of Evansville Was Re-elected President

**T**HE twentieth annual convention was, without question, the "red letter" convention of the Indiana State Association of Master Plumbers. More members were reported in good standing than at any time in the history of the state association.

More new members were admitted during the year than at any time in the history of the state association.

More delegates were in attendance than at any previous convention.

More ladies were in attendance than at any previous convention, which was one of the things that added to the dignity that so prominently prevailed during the three days.

A recommendation that the association members lend their personal and financial aid to the "National One-Cent Letter Postage Association," was also adopted.

Sanitation, the apprenticeship question, and state legislation were some of the other questions under debate.

During the afternoon and evening the delegates began assembling, the exhibit rooms at the Dennison hotel being open for the inspection of the public. The exhibit spaces were on either side of a long corridor leading from the elevator to the convention hall and were under the jurisdiction of the board of directors, being closed during convention hours.

The exhibitors were barred from treating delegates at



Delegates and Guests at Indiana Master Plumbers'

More exhibitors were present than at any time in the history of the conventions, and they were well patronized during the hours set out for that purpose.

## Monday Session.

At 11 a. m. Monday, President Woolley called the executive board into session. Those present were vice-president McQuade, Indiana Harbor; Allen J. Weinhardt, Terre Haute; Thos. Barnett, New Albany; J. J. Gallivan, Muncie; Jos. G. Hayes, Indianapolis; and A. E. Werkhoff, secretary-treasurer, Lafayette. All day and late into the night, these men labored behind closed doors, with affairs of the state association.

Among the recommendations the board had to offer to the convention was one that the association members make every effort to persuade any and all master plumbers to move their shops out of the alleys, where such exist, and in this way elevate the plumbing business. Their conclusions were that a man who could make money in an alley, could extract a larger profit if located on a business street.

all times, which greatly added efficiency to the exhibit, as an advertising proposition.

## Tuesday Morning Session.

At 11:10 a. m., President Woolley called the convention to order with about 175 delegates, ladies and visitors in attendance. At the rap of the gavel, Pres. Woolley was roundly applauded by the convention, in esteem for his wonderful success as their executive officer.

Mr. Woolley immediately introduced Geo. A. Geis, president of the Indianapolis local, who, in well chosen words, extended to the delegates and visitors, in behalf of the Indianapolis local, a most hearty welcome.

At the conclusion of his talk Mr. Geis introduced Mayor Lou Shank of Indianapolis. He welcomed the master plumbers to the city in a facetious talk, commenting upon the fact that he felt in a manner at home among the plumbers, and deep in his heart he had a soft spot for them, as he had at one time served as a gas-fitter's helper.

Mayor Shank said he was delighted to see the large attendance of ladies, for he believed it would add dignity

to the meeting and insure regular attendance. He concluded his remarks by inviting the ladies for an automobile ride the following afternoon, which was graciously accepted by them.

President Woolley responded to Mayor Shank's address of welcome, assuring him that the master plumbers and their wives were very grateful for his most generous offer, which was in a measure characteristic of the Indianapolis people. He said in part: "We are here, Mr. Mayor, for the purpose of helping mankind, to elevate our craft, to keep it in the enviable place that it now occupies in progressive society, and I can assure you that our object of meeting here today should be of equal interest to the public as to ourselves. We are here today to spread the gospel of sanitation, and to live down the belief that we are organized for the purpose of holding up the public. Mr. Mayor, I want to thank you again in behalf of this association for your hearty welcome."

Mr. Geis addressed President Woolley as follows: "Mr. President, in behalf of the Indianapolis local association, I wish to present you this token, as an evidence of our

this work so well. Mr. Geis, I can only thank you and your local for this memorable gift, but that does not express my appreciation."

#### Committees Appointed.

President Woolley then appointed the following committees, and prescribed their duties:

Sergeants-at-Arms—J. J. Quinn, Bedford; Wm. Beinsburg, and Oscar Hermann, Indianapolis; A. Graff, Logansport.

Credential Committee—John Orth, Lafayette; R. H. Gardner, Columbus; A. Lindeman, New Albany.

Auditing Committee—S. A. Schmitt, Evansville; Mr. Freitag, Terre Haute; Mr. Derheimer, Ft. Wayne.

Resolution—H. H. Highlands, Gary; Paul Dolan, LaPorte; Christ Aichele, South Bend.

Grievances—Jos. Hayes, Indianapolis; James McQuade, Indiana Harbor; Chas. Johanning, Richmond.

Press—Earl Clevenger, Muncie; John Berk, Gary; Geo. A. Geis, Indianapolis.

H. H. Highlands, chairman of the committee on reso-



Convention, Indianapolis, Mar. 10, 11 and 12, 1913.

appreciation of the work you have done for this local in the past year." Mr. Geis then presented Mr. Woolley with a handsome silver mounted mahogany gavel.

Mr. Woolley in response said: "Mr. Geis, I am at a loss to know just how I can express my gratitude for this token of authority. I shall always keep and cherish it, and it will always serve as a remembrance of those hard but pleasant hours we spent together while reorganizing the master plumbers of Indianapolis. What I have done for Indianapolis, I have done not only for Indianapolis, but for all our good, realizing at all times the necessity of numerical strength in our locals, to add strength to our state association, and with strength in our state, we would strengthen our national association. All I have done in the past year has come willingly and freely, never diverting from the point I sought—helping my fellow craftsmen. So today as I stand before this convention, I feel more than repaid for my every effort, and I am truly grateful for the assistance rendered me by the members, for it was the united efforts of all that completed

lutions, made a motion that all resolutions be read on the floor, and referred to the resolution committee.

President Woolley announced that the entertainment committee had prepared luncheon for the delegates and wives in the hotel dining room. The meeting then adjourned to 1:30.

#### Tuesday Afternoon Session.

A communication was read from National President Frank J. Fee complimenting the state officers on their year's work, and regretting his inability to attend the Indiana convention, owing to a previous engagement with his own state association, which convened on the same dates as the Indiana meeting.

A communication from National Director Carl J. Stein of Chicago was read expressing his regret at being physically unable to attend the convention. At this juncture, a rising vote of thanks was extended to Mr. Stein for his able assistance rendered the state president during the past year, and the secretary was instructed to notify him of the action of the convention.



### Talk by Mr. Ripley.

President Woolley then introduced Mr. Ripley, of the American Radiator Co., who made a very able address on "Overhead Expense." He reviewed briefly some of the statistics of trade mortality and used data collected by Bradstreet's to analyze the basic condition that proves disastrous, and gave incompetence as the most prominent reason for business failure.

Mr. Ripley gave as reasons for failure in the plumbing and heating business the following:

First, lack of mechanical skill; second, lack of proper accounting methods; third, lack of executive management. He explained at length the difference between the contracting business and that of a merchant who buys for resale. He explained the different methods of figuring profits and showed that the best precedent to follow was that employed by a successful man. He then went to the compiling of a cost system, and explained the items that constitute the overhead cost. He also touched on the subject of profits, and showed with illustrations what would be considered a fair profit. He gave as an example of figuring profits, our present banking systems of figuring interest or profit on money. He also brought out very forcibly, the benefit derived, by taking advantage of cash discounts and the importance of creating and maintaining profits.

Mr. Ripley's talk was graciously received, and on motion a rising vote of thanks was extended him by the delegates.

### President's Annual Report.

The president's report was then read, as follows:

In accordance with the requirements of our by-laws and the established custom, I submit herewith my report as your executive officer for the year just ended.

I can assure you that I appreciate the great honor you have conferred upon me by having extended to me the privilege of presiding over this meeting here today, and the faith you have displayed in me during the year past.

At the beginning I realized the responsibility, in the same measure, as it has fallen upon those who preceded me, and the day of reckoning would come, when I would be called upon to give an account of my stewardship, as to how well, and how faithfully I had tried to serve your best interests. This, then is the day that an accounting must be given you, and I hope to cover this as completely as possible, and I am willing to receive your decision of approval or criticism as you deem necessary.

I prefer, however, that my report will meet with your approval in the majority of those things I have done, because I have acted in good faith, never diverting from what I believed to be to the best interest of our association, acting at all times without favoritism and with equity to each member. It is indeed a wise custom and a most wholesome law that brings us from the busy world each year, to take an account of our affairs and see what we have done, as well as determine what we can do to preserve and elevate our business.

I trust every delegate will be present each session, and

thus store up every bit of information for home reports. Your officers have worked hard to help along the master plumber and his business, as well as to maintain dignity, and his enviable place in progressive society.

We are organized to help one another to further our trade; to develop it, and the need of such meetings as we are holding today is far reaching, for we alone must protect our own affairs, and to do this we must counsel with one another, relative to activities for the ensuing year.

It is not my intention in making this report, to criticise, or find fault with anyone, and I do not want this conception taken of any things I might say, for it is only my purpose to criticise our weakness, as I see it, and in so doing abolish these weak points, thereby adding strength to our organization.

My very mind and soul has been wrapped up in the affairs of the association during the past year, which has been costly in many ways to my own business, but I realize that someone must make this sacrifice each year in order to advance and protect our business interests. The association work is the most fascinating subject I have ever had the pleasure of coming in contact with, and I truly believe if each of our members would devote just one hour each week to studying association affairs, from an unselfish standpoint, we would in the short space of one year, have one of the best fraternal organizations in the world. We have it as it is, but we do not appreciate it.

### Membership.

I feel proud, indeed, to be able to report the large increase in membership that has taken place during the past year. The adding of 117 new members to our membership list; the forming of 6 new locals and the rebuilding of several others, is not a small task to undertake in the short space of twelve months. This without question surpasses the work of any state association in recent years, and the fact that many of our new members are men who have been members, but who dropped out for various reasons, greatly increased the work of securing their second application. As a part of the association I hope those new members can be counted upon to contribute ideas as well as numerical strength, and I believe much good material has been added to our association.

New members should be encouraged in every way possible; they should be invited to co-operate with the older members in every undertaking. Interesting the new members is the most economical method of promoting growth. We now have more members in good standing than at any time during the history of our state association, so far as I have been able to trace, by going through the books.

But four firms have been dropped during the year, one on account of death, and the others by their retiring from business. Nine firms now stand suspended for non-payment of dues, but I have every assurance that a great majority of these will pay up within a few weeks. Deducting these from the increase in membership during the year, leaves a total gain of 108 or 245 in good standing at this convention.

Indianapolis has increased its membership from a possible nine in good standing at the last convention to 57 in good standing up to this time. In Ft. Wayne, we recently organized a local with an increase in membership from one member in good standing at the last convention to 19 at this time.

Marion, Kokomo, New Albany and Jeffersonville are the other locals added this year.



Wm. J. Woolley, Evansville, State President.

New members have been added in 32 cities during the year, so you can see the organizing work has been very broad in its scope.

Your president has spent 23 days in all away from his business, doing organizing work; Carl J. Stein of Chicago, a national director, 11 days; Jos. Hayes of Indianapolis, 3½ days, and J. A. Gallivan of Muncie, one day; 1,440 letters and 3,000 papers have been mailed to all non-members in the state by me during the year, and we have had great assistance from the state jobbers and their salesmen in this work. Geo. Geis, of Indianapolis, as well as other active members in this city, have played an important factor in this organizing work; but it was through the combined efforts of all, that this work was accomplished so well; this is also the first time to my knowledge the national association has come to our rescue in organization work. Last December I called upon our national president in New York City, and convinced him of the necessity of having the assistance of the national association in our organizing work in this state; whereupon, Mr. Fee delegated Mr. Stein of Chicago, to assist me in this work, and I recommend that this convention extend to Mr. Stein a rising vote of thanks, for the great assistance he rendered us. Our national president has also been an important factor in this organization work, having sent letters to all non-members in the state upon several occasions in the past few months.

#### Legislative Matters.

Most of the work in this connection has been explained in the different issues of our state paper, but the report of the legislative committee will cover this in detail; the responsibility for our failure to secure state legislation during the past session rests largely upon all of our shoulders, as we have all been negligent in this connection and I would recommend that we not be discouraged at our past failure, but start organizing a campaign that will be so thoroughly covered that nothing can interfere. We should take an active part; first, in the primaries, then in the election of the state legislature; we should gather information, and data concerning every unsanitary condition that exists within our state, together with the improvement in sanitary conditions in other states, where sanitary measures have been enacted, and put in force.

In fact, our legislative committees, with the assistance of all members should and can compile sufficient data on this subject during the next two years to absolutely convince the most stubborn as to the necessity of proper regulations for the installation of sanitary appliances. In this way only can we hope to accomplish that which we seek; it takes organization to accomplish any work, no matter how small or trifling.

#### Complaints.

There have been but few complaints brought to my attention during the year, and these with the assistance of our executive committee have been adjusted to the best interest of our members; some complaints have come to this office from members against other members, but these were not serious enough to bring before the executive board.

#### Executive Board.

There have been but two called executive meetings during the year, the minutes of which you will hear at this Convention; most of the work of the executive committee has been carried on through correspondence and while I have in many instances proceeded with the work,

awaiting tardy answers, I am pleased to say the board has sanctioned every action I have taken; however, I would like to see only such men as will promise to answer communications promptly elected as members of the board; for this one feature is of vital importance to the incoming president, and without it he is adrift upon a sea.

Especially do I want to comment upon the assistance rendered me during the year by Joseph Hayes, of Indianapolis, who has willingly and at a moment's notice assisted me in many of the important transactions of the association during the past year. He has been a devoted association worker, and his efforts have been valuable.

The buyers' list, as adopted at the board meeting in September, was never carried out, through failure of our members to return the blanks sent out by the president, which was the only feasible way such a list could be compiled; however, we will fully discuss this feature during this convention; the collection agency was abolished for the same reason, lack of interest.

Your President and Mr. Hayes have had numerous meetings during the year with the state jobbers' association, and the efforts of these meetings have been of value to the jobbers, as well as our own association. Our relations have been most pleasant at all times, and the work we have started will be of value to our trade.

#### The State Paper.

Shortly after the last convention I concluded that a state paper would greatly assist us in further organizing the state and I can say to you frankly, that when I undertook this publication, I did not fully realize what I was up against, as I thought the members would contribute a sufficient quantity of interesting material to fill it each month; not being an editor, writer or advertising man, this was no small undertaking, but with the assistance of a few of our loyal manufacturers, I was able to start the paper without cost to the state, and it has been self sustaining, and a moneymaker from the first issue. In the contributing of material and essays by members I have been greatly disappointed, as I have had to furnish every line that has gone to make up the papers, except that contributed by 'Messrs. Highlands, Andrews and a few others.

The editor's name, E. M. Smith, which appears in the front of the papers, is in reality a fictitious one, being drawn from the initials of a stenographer in my office, who acts as a clerk or assistant secretary for the state and who by the way is the only salaried officer of the State and whose pay will aggregate \$3.00 per week. With the advertising we are now running, the paper will make a net profit of about \$70.00 per month for the state association in the future, and it is up to this convention to say whether or not the publication shall be continued.

If it is your wish that it shall be continued, I will say frankly that you will have to provide means for someone to edit it in the future, as I cannot afford to give my time to this work any further and unless someone will volunteer to do the work without compensation the paper will have to pay the freight.

This is the first state paper that has ever been started and maintained, that was a moneymaker from the start.

I am informed that the Ohio Master Plumber cost the Ohio State Association something over \$1,200 to successfully launch; New York and Pennsylvania also spent vast amounts in an effort to launch a state paper, but finally abolished the idea. So you see we have



another feat accomplished during the year, for which we can feel justly proud.

We should by all means continue the paper and improve it from time to time by adding new features that will be of interest and importance to our members.

I would recommend that in the future the classified advertisement column be free to our members in disposing of dead stock, overload of material or tools, etc., that they find difficult to move in their localities; I would also recommend that the "What's the Trouble" column be used more extensively in the future and I believe we should have a state committee on systems pertaining to the office of a master plumber and the reports and findings of this committee should be published in the paper.

The paper can be of untold benefit to us as individuals and to the association if we would all help just a little.

### Good and Welfare.

Under this head it is my intention to give you in as few words as possible an idea of how I believe the association should be run. I must confess I knew very little about the real workings of the association when I took the reins from Mr. Maloney last year and many a night have I pondered over my past misgivings for not having attended the meetings, while at the convention in years past, for I, like many others, attended the convention only to be entertained.

Probably some of these thoughts I have to offer are not new ones, but I offer them as thoughts I have put in practice during the past year and which I believe to be right and proper.

After making a careful study of our by-laws and the past workings of the association I am convinced that we have not, to any great degree, followed the objects for which we were organized and in diverting from these objects we have in a great measure lost our prestige and influence. If we are to make a success of this organization we must follow the objects as laid down in our constitution and by-laws, and if we do this we will have accomplished a great work.

In the first place, no local association should bar a man from becoming a member who contemplates entering the business, either by rule or by exorbitant initiation fees. If you want to make a good competitor of that man take him into your confidence, make a friend of him, show him the folly of taking work for nothing; I do not mean by this that you should fix prices, for I believe such practice will eventually disrupt any organization.

If every local association will meet regularly, have blackboard talks on "overhead expense" and other questions that are of direct interest to its members as business men, the fixing of prices will not be necessary, for when a man becomes acquainted with his true "overhead expense" he stops juggling figures.

When we enter the plumbing business as master plumbers from the journeymen rank, we enter a new field and one in which we have had no training. It becomes necessary for us to pick up day by day, year by year, the business knowledge we must acquire and in doing so our mistakes are many and costly. If we were fought by our competitors it perhaps makes the road all the rougher.

If the fight should be severe, we learn to doubt and mistrust them; we learn to buy from "wild cat" jobbers and when we are at last admitted to their confidence we are skeptical of everything and everybody. We have made friends with the "wild cat" jobber, the "cut throat"

general contractor and we refuse to let go of these, as we are not certain as to sincerity of our new associates, and an uneasy feeling exists.

So I have come to the conclusion that the following rules should be applied to all associations:

1. Take into the association every man that is eligible, as prescribed in our by-laws; make every effort to get him in.

2. Refrain from allowing personal feeling to enter into your association affairs, and elect men to offices who will devote their time and attention to the association work. Vote for the men who are best fitted for the work they are to perform, even though you dislike them personally.

3. You should not be hasty in judging the other fellow; be broad in your conclusions; if you find him at fault, don't fly the handle, but talk to him in a friendly way, sit down and show him his mistake. If he repeats it, shame him in a nice way, and you will find this method a more effective cure than open censure, and you will both profit. Apply the Golden Rule to your association, "that of treating others as you would be treated" and I believe that you will find harmony and good will will prevail.

4. Make your meetings interesting to your members and this can be best accomplished by following the work as outlined in article 3 of our constitution, and article 4 of our by-laws.

I dare say there is ample work prescribed in these articles to keep you constantly digging, and you will find the work interesting.

5. Have blackboard talks on "overhead expense," business systems and hundreds of other subjects I might mention; but if you follow out this one point alone, I can assure you that within a very short time you will be receiving some of the profit the public thinks you are now making and to which you are justly entitled. Indianapolis and other locals are now taking up this work and find it very interesting material for their meetings.

6. Take up questions pertaining to the rules of your local board of health, board of works, water board, etc. Ferret out the rules that are detrimental to your business and naturally to your customer; make an open fight against these unjust rulings, give them sufficient publicity and you will find the public with you; discuss any grievances you may have against a customer, jobber or workman. Counsel with the other members on the questions involved, as their views might change your conception of the subject and avert trouble.

Another important asset of a local association is the compiling of a "deadhead list." Place upon the wall of your association quarters a blackboard where the names of all "dead beats" can be placed; the members can copy from this board these names for use in their offices to prevent loss by extending further credit to these people.

7. Try in every way to live down the belief of the public that we are formed for the purpose of holding them up, and of preventing others from embarking in the plumbing business, as well as blacklisting jobbers and manufacturers who sell to plumbers other than association members.

Why we have been branded as guilty of such unlawful transactions, I am at a loss to explain, unless our past policy of holding local meetings secretly in order to keep down such belief, has only strengthened it.

I want to pause here to say that I have found plumbers who were of the belief that we were formed for this purpose, but I defy anyone to show a clause in our constitution and by-laws, that could be interpreted to that

meaning and as your executive officer, I have at all times forcibly denounced any such thoughts; we are formed for no purpose other than stated in our by-laws.

We must confess that we have been negligent in a great measure in the advancement of these objects and I sincerely trust that in the future more activity along this line will be displayed; the greatest evil we have to combat today, is the department stores and general contractor, and unless we take more active steps, we will soon find conditions in this country the same as in Europe where the master plumber has ceased to handle any of the material on the job, through his lack of organization, and where the jobber has been converted into a typical Chicago mail order house.

Last, but not least, in association affairs I would urge more social gatherings, as a limited amount of entertainment adds life to the organization, and I would suggest that state members in your locality be invited to participate in these events.

to their credit are elected delegates to the national convention, and the four men having the greater number of state slips, are elected to the state convention, with all expenses paid; you will be surprised at the interest this will create and how well your meetings will be attended.

For some reason our organization lacks the fraternal feeling and this question I have given a great deal of study; just how to develop this I am at a loss to explain, but in designing the badge you are wearing today, I felt the gold emblem button on the pennant would serve as an identification mark as to who were members and probably promote this feeling.

Another thought I have to offer, and in fact do recommend, is that this convention take action upon a resolution to insert in our by-laws a death benefit clause along the following lines:

If death should take from us one of our members during the coming year his estate should receive \$50.00 as a death benefit. During the second year \$100.00,



Indiana State Executive Board for 1912. Reading from left to right: J. J. Quinn, Bedford; Jos. G. Hayes, Indianapolis; A. E. Werkhoff, Lafayette; Wm. J. Woolley, Evansville; A. J. Weinhardt, Terre Haute; James McQuade, Indiana Harbor; A. Lindemann, New Albany; J. A. Gallivan, Muncie.

The most feasible plan I have found to run an organization and to create interest is as follows: Have your revenue for your association expenses come by assessments, of say, five cents (5c) per fixture installed, by each of your members; this does not work a hardship upon anyone, and each man pays dues in proportion to the amount of business he does.

You will find that this method will raise sufficient money to pay hall rent, entertainment expenses, state and national dues, delegates' expenses to the state and national association and other legitimate expenses; as a good plan to insure regular attendance I would suggest that each meeting night a drawing take place; if you are entitled to well, say, four delegates to the state convention and two to the National; place the six pieces of paper in the hat with "state" written on four, and "national" written on the other two, and place as many blanks in the hat as there are members in attendance at the meeting. At the end of the year the two men having drawn the greater number of "national" slips

during the third \$150.00, during the fourth \$200.00, during the fifth \$250.00, and \$250.00 annually thereafter; provided however if the holder of the policy should allow his dues to become delinquent at any time the policy is forfeited and he must enter as a new member. The policy to be issued in case of partnership to the one, who takes an active part in the association affairs.

This of course is only an outline and will require considerable work to place in proper shape, but I would recommend that immediate steps be taken to put this in practice as I believe it would be an incentive to hold our present membership and build up our organization.

#### Out-of-town Work.

The practice of some master plumbers going into territories outside of their natural zone, is one of the things that has created considerable feeling among plumbers of the state.

There is nothing in our by-laws to prevent such practice, and it rests entirely upon the honor of the men



involved of doing unto others as they would be done by.

It has been my experience as a master plumber to find very little profit and absolutely no satisfaction by intruding upon other territories; and trying to profit at their expense and I believe if we would devote just as much time to creating business in our own community as we do in seeking work in other territories, we would have an abundance of work without intruding upon our friends in the neighboring cities.

#### Recommendations.

I would recommend to the incoming officers and for the endorsement of this convention the following:

1. That the meetings between the association officers and the state jobbers' association be continued, as it is the most feasible way of advancing both our interest and in keeping harmony within our respective ranks.
2. That a retail price book be published by the state association similar to that issued by the Illinois association, and that a committee be appointed by the incoming president to complete the details.
3. That a committee be appointed at this meeting to investigate the feasibility of adding a death benefit clause to our membership.
4. That we send all the delegates we are entitled to, to the national convention.
5. That you provide ways and means to continue the publication of the Indiana Master Plumber, as the official organ of the state association.
6. That the purchasing power of each of our members be gathered and the information filed and the records revised each year.
7. That each local association keep the state office informed of successful plans in creating interest and attendance at meetings.
8. That an assistant secretary be maintained in the president's office to further organization work and insure prompt reply to all communications.
9. That the officers of the association counsel with the state jobbers' association to devise plans for revising the present methods of charging for boxing and cartage, to the end of having it included in the first cost of the manufactured article.
10. That like steps be taken to adjust or abolish the guarantee on enamel ware, or by taking the cost of replacing defective fixtures off the shoulders of the master plumbers.
11. That a standing committee on standardizing of plumbing material be added to our present list of committees, to suggest needed changes in this connection.
12. That a standing committee on the apprentice question be added to the list of committees to further this important question.
13. That the state association bear more of the expense involved at our annual convention and in this way take a greater load from the local association in the city in which the meeting is held.
14. That we make every effort during the coming year to divorce our work from the general contractor.
15. That locals refrain from electing new secretaries each year, as this is an important office and a secretary should be thoroughly familiar with the work he is to do, which requires time.

#### Financial.

I believe more money has been spent during the past year than in any year except, perhaps, the two years that an organizing secretary was employed; however

the receipts for this period have been heavier than at any time in the history of our organization, and we close the year's business with quite a sum to our credit, and I believe we have ample in the treasury and income to take care of any and all the recommendations and suggestions put forth in this report. However, complete information relative to our financial condition will be found in our treasurer's report.

In conclusion I wish to say that all correspondence to the president has been promptly answered, 2,246 letters and six thousand papers have been sent out from my office during the year while the number of letters received was approximately 500.

I have endeavored to give you a careful and economical administration and I will take advantage of the opportunity offered by this meeting to thank all of our members, through their delegates, for their generous support and the kindly courtesy shown me during my term.

The conclusion of the president's report brought forth an outburst of enthusiasm. Mr. Highlands moved the report be referred to the resolution committee, and that it be printed in full in the convention proceedings.

Mr. Hipskind objected to the motion, stating that he had been a member of the association for twelve years, and this was the first real report he had ever heard, and it ought to be taken up paragraph by paragraph on the floor of the convention and thoroughly digested. The chair ruled that Mr. Highlands' motion was in order and that the committee was the proper place for the report.

The report of the secretary-treasurer was then read, which showed a very substantial increase in the balance in the bank over the previous year.

The report of the credential committee showed 137 delegates in good standing, present.

The convention then went into executive session, when the committee on resolutions offered resolutions favoring each of the recommendations outlined in the president's report.

#### Wednesday Morning Session.

The secretary was called upon to read an invitation extended by the Indianapolis Exhibit Co. to all state members to bring clients to their quarters at all times to select materials for work. By motion the invitation was accepted.

George Kirkhoff, chairman of the legislative committee, then made a detailed report on the work of that committee for the past year. On motion the incoming president was empowered to appoint a new committee for a period of two years, so that sufficient data can be gathered to cover fully all obstacles.

The members and delegates were instructed to acquire signatures of customers, recommending state-wide inspection of plumbing installation, on printed blanks furnished by the state. It is estimated that the trade can gather in this way names of over one hundred thousand men and women favoring sanitation, to present to the next legislature.

The meeting then adjourned to the hotel dining room, where luncheon was served the delegates and visitors. This is a new feature that was added to the state convention last year, in view of holding the delegates together during noon hour, thus enabling the officers to start at an early hour at the afternoon sessions.

#### Wednesday Afternoon Session.

The report that one of the Indianapolis local newspapers printed a story in large black type on the front

page, that all reporters were barred from the convention, caused considerable confusion at the opening of the afternoon session, and the president instructed the press committee to call on all the local papers and enter a strong denial of the story, as no one had been barred at any time.

H. H. Highlands, of Gary, introduced J. A. Gurney, who addressed the convention on "The Relationship of the Master Plumber to the Vacuum Cleaning Industry."

#### Address of J. A. Gurney.

It has been suggested by your worthy president and others actively associated with the Master Plumbers' Association of the State of Indiana, that a short talk by one who has been more or less closely identified with the vacuum cleaning industry, might be of some interest to your members. Not being aware until yesterday that I was to be called upon, little time has been afforded me for the preparation of such a paper.

It might be well, before attempting to outline the possibilities which this new field has opened up, to spend a few moments in reviewing the development of the vacuum cleaner from the crude, high power, expensive device of ten years ago, to the economical and highly effi-



A. E. Werkhoff, Lafayette, Ind., Secretary-treasurer Indiana Association.

cient machine of today, inasmuch as the growth of the business, and the possibilities to the trade from a cultivation of it, should have an important bearing on the attitude which that trade is to assume.

The stationary plant of ten years ago not only cost a small fortune but was only conceded to have a place, and that a doubtful one, in large building operation. In addition to excessive first cost, the maintenance cost was a serious item, and the real value attaching to such an installation when gaged by present standards was more imaginary than real. The building owner, however, was not slow to appreciate the advertising value of this installation and secured many additional tenants thereby. While these first installations were crude in the extreme, enough had been done to convince even the most skeptical that air cleaning was not only possible, but that it offered a solution of the cleaning problem by collecting and disposing of, without distributing, the dust and dirt from carpets, floors, walls, etc.

Comparatively few of these plants were sold. About this time there was brought out in San Francisco, a portable machine, the manufacturer conceiving the idea that such a device would not only prove the solution of the vacuum cleaner problem, but would so broaden the market that any house owner of moderate means employing

electricity for lighting, would be a logical candidate for such a device. It was not difficult to interest capital in such enterprises, and, as a consequence, manufacturers of portable cleaners sprang up everywhere. Hundreds of thousands of dollars were poured into advertising, and the general public was, in many cases, made the victim, by purchasing machines which, while capable of doing some work, were improperly designed for long life.

From these portable machines, the original cost of which far exceeded the price now asked for an installed plant, the small stationary equipment developed. The work of convincing the owner and architect that air cleaning was not an Arabian Nights' dream, was at times exceedingly discouraging, but as the constant dropping of water on the hardest stone finally makes its impress, so the stone of prejudice was gradually worn away, for by this time the manufacturer had secured the complete endorsement of the sanitary engineer and the medical men of this and other countries, who early appreciated the value of such an invention, and unsolicited, were responsible for many articles which helped not a little to turn the tide in favor of the new industry.

Meanwhile, those manufacturers who were fortunate enough, by reason of conservative methods of selling and advertising, to survive, had not been idle, and had succeeded in reducing a complicated inefficient and exceedingly expensive device to a simple and practically fool-proof silent servant. Up to this point, the plumber or steamfitter had only been called in when the deal had been made or was about to be consummated. The ratio of profit on machine and equipment, as against labor, was all in favor of the former. To the tradesman unfamiliar with this apparatus, there was much that was new, and he hesitated to assert himself and take his true place in the industry. With comparatively few exceptions, he was satisfied to forego the profit on machine and equipment, taking only a nominal profit on his labor and the material which entered into the piping cost. He either overlooked the fact in so doing, that he was automatically forfeiting a handsome profit, which on the smallest residence installation would amount to practically double his piping bid, or knowing conditions, hesitated to assume the responsibility.

In the past year there has been a general awakening among the master plumbers of this country, and in several instances, the subject of vacuum cleaning has come up for discussion as to whether or not it is policy to quote manufacturers desirous of installing piping without first being assured their proportion of the profit on the equipment.

In order to fix positively the plumber's relationship to the industry, and determine what position he should assume in such matters, it seems desirable that we analyze as closely as we can the possibilities and weigh well the responsibilities, which the work entails.

First, as to the possibilities:

Statistics show conclusively that of the homes averaging in cost \$10,000 and upward, at least 80 per cent are being piped for vacuum cleaning, 70 per cent of these purchasing now, and the balance will install at some later date. These prospects, while affording the manufacturer a splendid volume of business, do not by any means satisfy him, his aim being to equip every six to ten room home, costing from \$4,000 to \$6,000, with his device. Such progress has already been made that it is now possible to install a cleaner complete for approximately \$250. So much for the homes of our land. Practically every hotel and office building now under construction is providing for vacuum cleaning, 90 per cent of all school boards and



all of the hospitals regard this expenditure as necessary, and are instructing their architects accordingly, and the owner is coming to ask the question, "What about vacuum cleaning?" Owners of theaters and auditoriums, and of all places where the public gather, find that in order to insure attendance and properly provide for the comfort of their patrons, it is necessary to include vacuum cleaning. This is true today not only of the ten, twenty and thirty cent playhouse, but even the picture shows are including and advertising this feature. Factories, stores, wholesale houses, are all candidates to a greater or less extent. The Pullman Company has recently installed a machine in one of its cars and proposes to add others.

So much for the field. Now, as to the responsibility.

As previously mentioned, the original vacuum cleaners were complicated in design, and the possibility of mechanical trouble developing was not remote. Furthermore, a careful study of piping for air cleaning had not been made, a common error being to install in some cases as small as one inch pipe. There could be but one result, namely, clogged piping, annoying both the owner and agent, and indifferent service due to the use of small hose.

This type of machine bears no closer resemblance to the present stationary plant than the horseless carriage of fifteen years ago does to the six cylinder electrically lighted, heated and started limousine, but unlike the automobile, the vacuum cleaner has become less complex in its make-up and its efficiency has increased at least one hundred per cent. The up-to-date cleaner is so designed that the rubbing or wearing parts are reduced to a minimum. Dust is no longer carried through the impellers or fan blades, which, in the case of the fan machine, are simply slipped on the extended shaft arranged in either vertical or horizontal position. In such machines, the rubbing parts have been reduced to two, or at the most three, and if these are provided with adequate lubrication, such as ring or force feed oilers, no trouble can logically be expected from this source. No other care is necessary than to empty the dust receptacle. The life of the machine, therefore, is the life of the motor, and experience teaches that the average electric motor used daily in our shops for all kinds of work has a life of from twelve to fifteen or eighteen years. Aside from motor trouble, we have possible pipe trouble to consider. The manufacturer of today graduates his pipe sizes to accommodate the air handled by his machine, and is not only willing, but anxious to furnish the trade with complete information in simple form, and to provide the purchaser or jobber with a complete layout showing not only pipe sizes, style and number of fittings, and in fact, any and everything necessary to enable the fitter to complete in a satisfactory manner his installation. He is further prepared to guarantee his machine against defects in construction or workmanship, which may develop within one year from date of installation. Machines today are being manufactured and marketed by firms of unquestioned financial responsibility, and no greater responsibility is being taken by the trade in the purchase of a vacuum cleaner than in buying radiation or boilers.

Let us look for a moment at a typical residence installation in a two story and a half dwelling house, involving one riser pipe with outlets on the first, second and attic floors. Two inch selected black iron pipe is used, care being exercised to see that there are no burs or fins. The pipe is cut to the required length and all joints are reamed. Long sweep, recessed drainage fittings are used, the pipe properly supported, and the valves

supplied by the manufacturer are then screwed in. A cleanout plug, preferably of brass, is placed in the end of the horizontal pipe leading to the machine, so that in case of stoppage it is only necessary to unscrew this to get at the obstruction. From the exhaust end of the machine, a 2½ in. pipe of the same type, is run to the flue or breeching to carry off the foul air, and the piping work is completed. All that now remains is to connect the two motor leads to the house wiring. As many of our plumbers also do electric wiring, this is a very simple matter. If, however, it becomes necessary to call in an electrician, the cost of the work should not exceed \$5 and in many cases materially less. Unlike the average plumbing and heating work, payment for which is sometimes deferred for long periods, due to a defective radiator section or some other minor cause, the vacuum cleaner can be quickly installed. The piping, which at the most does not cost more than twenty-five to thirty dollars, can be roughed in and the order placed for the cleaner, shipping instructions to follow. The entire work of connecting up can be done within a few hours of its arrival, and by the time the bill matures the money is on hand to satisfy it.

Now, as to the profit to be derived from such a sale, or rather, the ratio of profit on machine and equipment as against piping and labor. This is about eight to one; in other words, on a piping job costing the user \$25 to \$30, the profit would be approximately \$6, while the profit on machine and equipment would amount to about \$48.

That there is a tremendous future in the industry is proven not only by the number of manufacturers now in the field, but by the evident desire of other trades to secure the business. The electrical contractor is now working hard with architect and owner, to induce him to include the vacuum cleaner and electrical connections thereto in his contract, and is perfectly willing that the piping should be made part of the plumber's work. When necessary, however, he does not hesitate to install the piping, using electrical conduit for this work.

In the opinion of the writer, this work belongs to the trade to as great an extent as does the boiler, the bath tubs, or the radiator, and it is just as reasonable to ask the plumber to run his heating or water pipes and then make connections to a boiler or radiator, which some other contractor has sold, thus depriving him of the profit which is logically his, as it is to ask him to do the piping and connecting up of a vacuum cleaner, without participating in the profit from its sale.

The failure of the trade to assume its proper relationship to the industry can have but one of two results, i. e., either the taking over of this work by the electrical contractor, or the complete installation by the manufacturer, of machine and piping, thus relieving the trade of those profits which properly belong to it, and divorcing it from an industry which, viewed from the most conservative standpoint, bids fair to outlive even the heating trade.

#### Other Business.

The feasibility of adding a death benefit clause to the constitution and by-laws was then discussed at length by the president and others, and a resolution prevailed authorizing the incoming president to appoint a committee to work out the details and report back to the next convention. The president appointed A. E. Werkhoff, of Lafayette; E. F. Kirkhoff, of Indianapolis, and Chas. Johanning, of Richmond, as members of the committee.

A resolution granting the president the right to em-

ploy an assistant secretary to further the organization work, was carried unanimously.

A resolution favoring one cent letter postage was then introduced and a motion carried, after some discussion, indorsing the efforts of the National One Cent Letter Postage Association, and a copy of the resolution was forwarded to that association.

#### Election of Officers.

The following officers were elected for the ensuing year:

President, Wm. J. Woolley, Evansville.  
Vice-president, Jos. G. Hayes, Indianapolis.  
Secretary-treasurer, A. E. Werkhoff, Lafayette.  
National state vice-president, H. H. Highlands, Gary.  
Directors: Allen J. Weinhardt, Terre Haute; Thos. J. Barnett, New Albany; J. J. Quinn, Bedford; Chas. Johanning, Richmond; J. A. Gallivan, Muncie; Fred Hips-kind, Wabash; J. F. Schwegman, Ft. Wayne; H. H. Highlands, Gary.

A. E. Werkhoff in a forcible address invited the association to Lafayette for the next convention, which was unanimously accepted. The officers will make every ef-

gram of the state association, which was the same size and design as the button furnished on the delegate badges.

Tuesday afternoon the ladies were entertained at a theatre party at Keith's vaudeville theatre, as guests of the Indianapolis master plumbers' wives. About fifty were in attendance.

#### Banquet Tuesday Night.

The banquet at the New Dennison Hotel in the large American dining room was a delightful affair. Three hundred and twenty-six were in attendance, about fifty of whom were manufacturers and material men. The menu was especially well served.

#### MENU.

Vitreous China (Celery)	Flushometers (Blue Points) Tank Balls (Olives)	Tank Linings (Martini Cocktails)
Smooth-On (Cream of Asparagus)		



Thos. W. Foley and John C. Foley, Foley Bros., Indianapolis.



Geo. J. Dehn, Pres. Compound Injector and Specialty Co., Chicago, at left; W. E. Parker, Jr., of same Company, at right; E. J. Barrick of Pittsburgh Water Heater Co., Pittsburgh, Center.



Edw. P. Sheeran of Geo. J. Roberts Co., Dayton, O., and D. E. Rowley of H. Mueller Mfg. Co., Decatur, Ill.

fort to get into the association every eligible master plumber during the coming year.

Joseph Hayes, of Indianapolis, introduced a resolution for the convention to adopt the monogram or trade mark recently drafted by the president as the state emblem. The motion carried unanimously.

Mr. Highlands introduced a resolution urging all members to frame the membership certificates furnished by the state and place them in a prominent place in the master plumber's office; motion carried.

The president called upon all local presidents, district chairmen and individuals to assist him in every way possible to add every eligible master plumber in his vicinity during the coming year.

A rising vote of thanks was then extended the Indianapolis master plumbers, and the exhibitors for the excellent manner in which they had been entertained and cared for.

The largest and best Indiana State Convention then adjourned, sine die.

#### Entertainment.

On Tuesday morning the ladies assembled in the hotel parlors where they were introduced to one another. The souvenirs were hat pins with the newly adopted mono-

Woolley's Cooked Lake Bass, Geis Sauce  
Shank's Sweet Potato Chips

Lead Shavings  
(Julien Potatoes)  
Green Peas (Noiseless)

Freeze Ups  
(Ice Cream)

Wiping Solder  
(Assorted Cakes)

Unfiltered Water  
(Coffee)  
Plumbers' Furnaces  
(Cigars)

At the conclusion of the banquet, Joseph Hayes of Indianapolis introduced President W. J. Woolley as the toastmaster. President Woolley gave a very fitting introduction story and after commenting upon the necessity of social affairs in connection with a convention he called upon E. J. Barrick of the Pittsburg Water Heater Co., to represent the manufacturers and commercial men. Mr. Barrick made an interesting talk and commented upon the prosperity and good feeling that seemed to exist among the master plumbers of the state.



President Woolley next called upon Mr. McGill, manager of the Indianapolis branch of Crane Co. Mr. McGill repeated a few of his catchy stories, all of which were good, and enjoyed.

Mr. Woolley next called upon Mr. Holland, a master plumber, who recited various pieces of poetry by the Indianapolis poet, James Whitcomb Riley. Mr. Holland has long been a favorite at banquets, and is a good entertainer.

Mr. Noll of Ft. Wayne also gave an interesting talk.

Mr. Woolley, at the conclusion of Mr. Noll's talk, said that he felt the evening's entertainment would not be complete without a word from the ladies, and the one whom he intended calling upon was equal to the occasion. Whereupon he called on Mrs. Allen Weinhardt, of Terre Haute, who proved to be a speaker of some ability, and at the conclusion of her talk, was roundly applauded.

Then followed Harry Porter, of Indianapolis, a monologue artist; Fred Thoms and Miss Calahan, who rendered some excellent singing, and Harry Murbarger, another local monologist, all of whom were excellent entertainers.

At the conclusion of the program, the dance hall was thrown open and the delegates and wives clipped off waltzes and two-steps until the midnight hour.

Wednesday morning the visiting master plumbers' wives were escorted through the principal department stores of Indianapolis on a shopping tour, by the ladies of Indianapolis. Souvenirs were given the visitors at the various stores.

At two o'clock the ladies were escorted about Indianapolis in automobiles as the guests of Mayor Shank's wife. They visited the principal points of interest about the city and were driven to the Speedway. About fifty ladies participated.

#### **President Woolley Forms Ladies' Auxiliary to State Association.**

Just before starting on the auto trip, President Woolley called all the ladies together in the hotel parlors, where a State Auxiliary of the Indiana State Association of Master Plumbers, was formed.

Mr. Woolley acted as temporary chairman, and the following officers were elected for the ensuing year:

President, Mrs. Geo. A. Geis, Indianapolis.

Vice-president, Mrs. Jos. P. Martin, Ft. Wayne.

Treasurer, Mrs. Paul J. Dolan, LaPorte.

The board of directors will be appointed by the president, one for each city having a local association of master plumbers.

About \$60 was accumulated by the ladies to start the work, and they expect a membership of over 200 by the next convention.

The auxiliary will take up the social work of the craft and try to create a larger attendance of master plumbers' wives at all conventions.

They will also try to organize a large party for the 1915 national convention, and will make an effort to form locals in various cities during the year.

The Ladies' committee was composed of Mesdames T. J. McCarthy, Geo. Geis, Chas. Holtman, James Kreglo, A. W. Buschmann, Claude Locke, Wm. Beinburg, and J. G. Hayes.

The entertainment committee consisted of Chairman Chas. Holtman, Virgil Vestal, Claude Locke, Wm. Courtney, Harry Freyn, Geo. Rickes, Charles Ertle, A. W. Buschmann, Thos. J. McCarthy, Frank Stewart, John Tomlinson, James Kreglo and Wm. Beinburg.

#### **Manufacturers Represented.**

The Geo. J. Roberts Co. of Dayton, Ohio, was represented by Edward P. Shceran, sales manager.

J. J. Grosser of the Rickersburg Brass Co., Cleveland, Ohio, was on the ground and greeted his friends.

J. A. Schleuter, sales manager of the Van Camp Hardware & Iron Co., of Indianapolis, assisted by Claude McElwaine, T. F. Utley and Wm. Castlen, made the stay of the visitors in Indianapolis a pleasure during the convention.

The Illinois Pump & Brass Co. was represented by C. L. Wilkins, president and general manager, who came over from Peoria, Ill., the home of the company, to greet the visitors.

E. J. Barrick, assistant manager of the Pittsburg Water Heater Co., Pittsburg, Pa., was present during the session.

The H. W. Johns-Manville Co. of Milwaukee and New York was represented by L. W. Boyden.

Edward R. Lewis was on the ground as representative of the Van Arnam Manufacturing Co. of Fort Wayne.

C. E. Burnett, sales manager of the Vaile-Kimes Co., of Dayton, Ohio, assisted by R. F. Tansel, were present at the exhibit of this company.

The exhibit of the Great Western Pottery Co., Kokomo, Ind., was looked after by C. H. Muckerheren.

L. E. Tremaine, of the Humphrey Co., Kalamazoo, Michigan, explained the merits of the Humphrey heaters.

Charles Wulf of the American Valve Co., Indianapolis, welcomed the visitors to his city.

Charles B. Irish and A. B. Chambers were the representatives of the Leader Iron Works, Decatur, Illinois, at their exhibit of pumping machinery.

The Peerless Selling Co. of Evansville was ably represented by H. F. Weaver, C. G. Perkins and G. R. Smith.

D. E. Rowley, Indiana representative of the H. Mueller Manufacturing Co. of Decatur, Illinois, was present at their exhibit of brass goods.

The line of drainage fittings manufactured by the Compound Injector & Specialty Co. of Chicago was explained by the president, Geo. J. Dehn, assisted by H. E. Parker, jr.

P. J. Travers was the representative of the Beler Water Heater Co., Pittsburg, Pa.

The Indianapolis Gas Co. displayed a line of Ruud Gas Water Heaters which were explained by F. McCaughan.

#### **MICHIGAN MASTER PLUMBERS ELECT OFFICERS.**

The Michigan Master Plumbers' Association held its twenty-first annual convention at the Auditorium at Saginaw, March 18th and 19th. About 125 members were in attendance. A most interesting convention was the result, with enthusiasm manifested at each meeting.

The election of officers on Wednesday resulted as follows:

President, J. J. O'Neil, Kalamazoo.

Vice-president, C. R. Nichols, Bay City.

A new secretary was not elected as W. A. Decker, of Grand Rapids, who is now secretary, was elected for a three-year term, which covers the coming year.

President O'Neil appointed George McCullom, of Muskegon, and C. P. Tietze, of Detroit, as members of executive committee.

The convention next year will be held at Grand Rapids.

A full report of the proceedings, with illustrations, will appear in next week's issue of "Domestic Engineering."

## ILLINOIS MASTER PLUMBERS PRESENT PETITION TO GOVERNOR DUNNE.

On March 15th a committee of Illinois Master Plumbers' Association composed of John L. Robertson of Mason City, Frank U. Patterson of Springfield, and Bernard Gause of Jacksonville, called on Governor Edward F. Dunne at the Executive Mansion at Springfield and presented him with two communications as authorized by the State Convention held at Springfield in January.

One of these communications is a recommendation that Thomas O'Connor of Peoria be reappointed as member of the Board of Administration, and is as follows:

"At the annual state convention of the 'Illinois Master Plumbers' Association' held in Springfield, Illinois, January 30, 1913, the convention unanimously adopted a resolution and appointed the undersigned a special committee to present a request that you re-appoint the Hon. Thos. O'Connor a member of the Board of Administration.

"The committee believe that aside from his splendid personal character and business judgment, he brings to his position a knowledge of Heating, Ventilating, and Sanitation which are of vital importance to the institutions under the management of this Board.

"No other equipment of these institutions plays as important a part in their daily routine, as does the Plumbing and Heating, and in Mr. O'Connor you have on your Board of Administration a person skillfully trained in these lines competent to give expert supervision over these departments.

"The members of our association would be pleased to have you re-appoint Mr. O'Connor and believe that his services will reflect creditably for your administration."

The other communication refers to the separate letting of contracts for plumbing and heating and all State work and requests that these items be separated from the general contract, as will be noted in the following:

"The undersigned Committee representing the Contractors for Plumbing and Heating throughout the State of Illinois was appointed at the last Annual Convention of our Association to renew a former request that was made to secure the 'Separate letting of contracts for Plumbing and Heating' for all 'state work,' and we submit you the following as a part of the number of reasons that are in our opinion in favor of the request we are asking:

"First: The custom of separate letting of plumbing and heating contracts prevails on practically all work that is contracted throughout the State except that which is now contracted by the State Government.

"Second: It will be economy for the State to make the contracts separately for the reason that 'general contractors' usually add 10 per cent to our bids when included in a general contract.

"Third: This class of work by reason of its nature does not become on any building an essential part of the 'structural work,' hence its elimination from a general contract will make no complication or cause any inconvenience to a 'general contractor' in the management of his work.

"Fourth: On account of the varying conditions in the different parts of the State and the prior equipment of these different institutions with a distinct and different systems of installation it makes the direct control by the Board of Administration desirable.

"Fifth: It will enable the 'Board of Administration' to select competent men to install this very important work for your institutions.

"Sixth: Recent changes in the 'Lien Laws' do not give a sub-contractor adequate protection.

"Seventh: A 'surety bond' that is required of a 'general contractor' fails in the majority of cases to protect the sub-contractor.

"Eighth: The men engaged in our line of business are for the most part not technically trained business men and they require the protection they are asking.

"Ninth: This class of work is the last which is placed in a building and when a financial loss occurs we pretty

generally suffer the most among sub-contractors, and we have no protection from the 'Lien Law.'

"Tenth: For the State to persist in including the plumbing and heating with the 'general contract' will, we fear, again bring about a business condition that we labored for 20 years to overcome, at much expense of both time and money, and very important part that our work has to do with public health we believe requires that stability and permanency to be the foundation of the future service that our 'Craft' will render to the public, and we are not to make much progress if generally speaking the business is a financial failure.

"The plumbers of the State of Illinois hope that you will request that it only requires that you instruct your 'state architect' and the Board of Administration to let these contracts separately."

## SYRACUSE MASTER STEAM-FITTERS ORGANIZE.

The Master Steam and Hot Water Fitters' Association, of Syracuse, N. Y., has been incorporated recently. The directors are: Charles E. Ames, Frank Leavery, Edward Joy, Edward P. Bates, Thomas E. Gildea and Thomas Dougherty.

## WEST VIRGINIA CONVENTION POSTPONED.

The twelfth annual convention of the West Virginia Master Plumbers' Association, scheduled for March 18th, has been postponed, and at a special meeting held in Wheeling, on March 17th, it was decided to hold the convention some time in May. Isaac J. Brown, of New York City association, was present at the meeting and he decided to devote some thirty days of his time to association work in West Virginia between now and the date for the state meeting.

## MASTER STEAM FITTERS ASSOCIATION ORGANIZED IN MICHIGAN.

At the afternoon session of the Michigan State Master Plumbers' Association at Saginaw, March 18th, it was announced that a meeting of the master plumbers who were interested in organizing a State Master Steam Fitters' Association, would be held immediately at the close of that session.

At five o'clock about 50 plumbers met with G. W. Harrigan, of Detroit, as temporary chairman and Charles Cannon, of Saginaw, secretary. After an explanation of the purpose of the meeting by the chairman and statement that some Detroit plumbers had been seeking to organize a State Master Steam Fitters' Association, those present voted unanimously that they be recognized as charter members of the new association. Chairman Harrigan then appointed as a nominating committee, Messrs. Partlan of Detroit, McGurrin of Grand Rapids, Pulte of Grand Rapids, Otto Wurm of Detroit, and George McCullom of Muskegon.

This committee nominated the following officers:

President—George McCullom, Muskegon.

Vice-president—Charles Licht.

Secretary and treasurer—Otto Wurm, Detroit.

The Executive Committee is to consist of the above named officers and G. W. Harrigan.

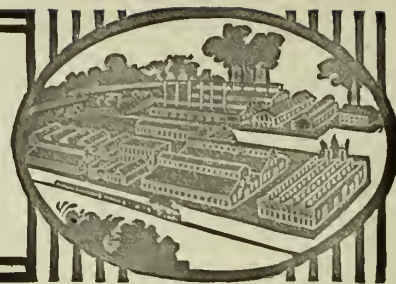
A motion was adopted that a fee of \$15.00 be established temporarily, to be paid into the treasury within 30 days.

It is the intention of the new association to affiliate with the National Association of Master Steam and Hot Water Fitters. Arrangement has been made to take care of those in the State who are now members of the National Association.





## News of Interest Among the Wholesalers and Manufacturers



### WILL MANUFACTURE HEATING SPECIALTIES.

The Reading Heater & Supply Co., of Reading, Pa., has been incorporated with a capital of \$5,000 to manufacture heating supplies. The board of directors are: Theodore M. Keppelman, Charles L. Hoffman and B. L. Miller, who are also the incorporators.

### WILL DEAL IN PLUMBING SPECIALTIES.

The Robert Murray Co. Inc., is the style of a firm recently incorporated in Boston, Mass., with a capital of \$50,000, to deal in plumbing specialties. The incorporators are: R. Murray, West Roxbury; L. E. Fitzpatrick, Medford; and J. A. Grant, Everett.

### WILL MANUFACTURE GAS RADIATORS.

The California Sanitary Gas Radiator Co. has been incorporated at Los Angeles, Cal., with a capital of \$50,000, to manufacture gas steam and gas water radiators. The incorporators are: V. M. Osborn, A. R. Koch, W. G. Banning, C. L. Hart and M. A. Banning.

### TO BUILD STILL ANOTHER ADDITION.

The Auburn Leather Goods Co., of Auburn, N. Y., having just doubled the size of its plant, finds now that it will have to erect still another addition. This step is due to the enormous growth of the company's business in the manufacture of plumber's packings.

### ELECTION OF OFFICERS OF THE GREAT WESTERN POTTERY COMPANY.

At the annual meeting of the Great Western Pottery Co., of Kokomo, Ind., held recently, A. V. Conradt was elected president and treasurer, Wm. G. Coxon, vice-president and superintendent, and Geo. C. Kalbfleisch, secretary. G. Conradt retires from official connection with the company.

### BEST MFG. CO. BUILDING NEW PLANT.

The Best Mfg. Co., of Cleveland, O., is erecting a two-story brick building, with 30,000 square feet of floor space, at E. 47th Street and St. Clair Avenue. The building is to be used for both the manufacturing and jobbing end of the company's business and will also furnish office space for the Best Mfg. Co. and The Sterling Brass Co. It is expected to be ready for occupancy about June 1st.

### WILL MANUFACTURE PLUMBERS' BRASS GOODS.

The Imperial Brass Foundry & Mfg. Co. has been incorporated at Painesville, O., with a capital of \$50,000, to

manufacture plumbers' brass goods. The company was incorporated by C. M. Ludlow and others.

The J. A. Cochrane Brass Mfg. Co., of Cleveland, O., has been incorporated with a capital stock of \$20,000 to manufacture plumbers' brass goods. The incorporators are John A. Cochrane, David H. Cochrane, Joseph A. Meaher, F. A. Mahon and John Thorne.

### KIELEY SPECIALTY COMPANY INCORPORATED.

The Kiely Specialty Company of Chicago has been incorporated by James McAlear and J. Roy Andrews. The offices will be established in the Fisher Building, Chicago. The company will carry a complete stock of Kiely & Mueller steam specialties being exclusive distributors for this company in the western territory. Both of the incorporators are well known to the Chicago trade, Mr. McAlear having been engaged in the general engineering business in Chicago and elsewhere for the past 25 years. Mr. Andrews has been associated with the Chicago office of the H. W. Johns-Manville Co. for the past three and a half years and prior to that he was in the heating and ventilating business in Chicago.

### SEVENTH ANNUAL MEETING OF THE MAINE PLUMBING AND HEATING SALESMEN.

The Seventh Annual meeting and dinner of the Plumbing, Steam and Metal Salesmen's Association of Maine was held at Riverton Park, Portland, Me., on Monday afternoon and evening, March 10. The attendance was not large but what was lacking in numbers was made up in jollity and a thoroughly good time was enjoyed.

The election of officers for the year resulted in the choice of the following: President, Byron E. Near, Cape Elizabeth, Me.; first vice-president, Archie E. Campbell, Cambridge, Mass.; second vice-president, Shirley R. Mitchell, Malden, Mass.; third vice-president, J. M. Griffiths, South Lyndeboro, N. H.; treasurer, A. M. Rosebrooke, Portland; financial secretary, William F. Snow, Portland; recording secretary, Ellsworth F. Hayden, Portland.

Mr. Near, the new president, was born at Albany, N. Y., but came to Maine and took up his residence at Cape Elizabeth some years ago. He started his career on the road with the H. W. Johns Manufacturing Co., and has always carried the same line of goods.

Following the business meeting dinner was served in the red room at the Riverton Park Casino. George H. Paul acted as toastmaster at the post-prandial exercises following. Archie Campbell responded as usual with an original poem and A. M. Rosebrooke sang "Silver Threads Among the Gold" as his contribution to the evening's enjoyment. Others spoke.

Seated about the tables were: Byron E. Near, Cape Elizabeth, Me., representing the Boston branch of the

H. W. Johns-Manville Co.; Archie E. Campbell, Cambridge, Mass., representing William H. Gallison Co., Boston; Shirley R. Mitchell, Malden, Mass., representing the Walworth Manufacturing Co., Boston; A. M. Rosebrooke, Portland, representing Gurney Heater Co., Boston; William F. Snow, Portland, representing J. L. Mott Iron Works, Boston branch; Ellsworth F. Hayden, Portland, representing the Smith-Abbott Co., of Portland; W. E. Choate, Fairbanks Co., Boston; C. S. Mallard, Herrick Co., Boston; C. R. Nelson, Magee Furnace Co., Boston; Herbert S. Wakeley, H. W. Johns-Manville Co., Boston; F. E. Foggs, H. W. Johns-Manville Co., Boston; Everett C. Mann, Austen & Daten, Boston; J. E. Hodgkins, Jen-



Byron E. Near, of the H. W. Johns-Manville Co., Boston.

kins Brothers, Boston; H. P. Files, Crane Co., Boston; George H. Paul, Crane Co., Boston; F. A. Taylor, Brown Wales Co., Boston; R. A. Nordbloom, U. T. Hungerford Co., Boston; John H. Douglass, Smith-Abbott Co., Portland; Rupert C. Parker, Smith-Abbott Co., Portland; J. Warren Chase, W. L. Blake & Co., Portland; George H. H. Lawton, Portland Stove Foundry, Portland; Joseph E. Herrick, Abendrath Brothers, Port Chester, New York; T. F. Simon, Page Boiler Co., Norwich, Conn.

All are salesmen who travel regularly through the state of Maine.

#### THE MARCH MEETING OF MASSACHUSETTS CHAPTER OF A. S. H. & V. E.

The Massachusetts Chapter of the American Society of Heating and Ventilating Engineers held its regular monthly meeting at Louis' Cafe, in Boston on Tuesday evening, March 11th, with a good attendance and many guests including Frank T. Chapman, of New York; Charles Kimball, T. F. McCoy, M. A. Dame, Lynn, Mass.; J. M. Greenlaw, Beverly; and A. B. Franklin, jr. The meeting was presided over by President F. I. Cooper. The chief speaker was Frank T. Chapman, of New York, chairman of the committee on ventilation of moving picture places, and a standard of laws governing such houses was discussed at length.

After a discussion in which Capt. Joseph A. Moore, Charles F. Eveleth, Pres. Cooper, J. W. H. Myrick, A. B. Franklin and Charles Kimball took part, recommendations for legislation on minimum ventilation standards were adopted.

These called for a minimum of 4½ square feet of floor area as a seating space per occupant, exclusive of aisles and public passageways, and a minimum of 80 cubic feet of air space per occupant. They also require that the quantity of positive supply of outdoor air be based on a

minimum requirement of 15 cubic feet per minute per occupant. The recommendations include measures for machine booth ventilation. The speakers were unanimously of the opinion that such legislation is most important for protection of the health of the people, as at least 75,000 persons attend picture shows in Boston daily. At present there is no law in these matters. It was, however, pointed out that the motion picture houses in Boston, as a rule, have a larger capacity than the same class of houses in New York.

#### THE MARCH MEETING OF THE NEW YORK CHAPTER OF A. S. H. A. V. E.

The regular monthly meeting of the New York Chapter of the American Society of Heating and Ventilating Engineers was held in the Engineering Societies Building, New York, on Monday evening, March 17 with President F. G. McCann in the chair.

Secretary Joseph Graham announced the deaths of two of the Chapter members. Dr. J. S. Billings, New York, an honorary member, who died on March 10th, and J. A. Payne, member, Bayonne, N. J., who died March 3rd. It was voted to refer this to the Board of Governors for action.

The Committee on Tests of the New York Chapter made a report in which was included the following resolution:

"RESOLVED: That the Committee on Tests recommends that the New York Chapter of the American Society of Heating and Ventilating Engineers, through the trade press, invite all manufacturers of heating and ventilating apparatus, as well as all engineers, technical institutions, etc., to submit data covering any tests of heating and ventilating apparatus and appliances that they may have made, for compilation and submission to the Society. Full details concerning all tests and the conditions under which they are made should be included." Communications should be addressed to "The Committee on Tests, New York Chapter, American Society of Heating and Ventilating Engineers, 29 W 39th St., New York." It was voted that this report should be accepted.

Secretary Graham announced that, in accordance with the vote of the members, the meeting night of the Chapter had been changed from the third Tuesday of the month to the third Monday.

C. L. Bulkeley then gave a talk on "Removing Steam from Dye-Houses," and "Heating and Ventilating of the New York Office," illustrated by the use of several lantern slides. A vote of thanks was extended to Mr. Bulkeley for his kindness in giving this talk to the chapter.

#### HAS INCREASED ITS CAPITAL STOCK.

The W. M. Pattison Supply Co., Cleveland, O., has increased its capital stock from \$50,000 to \$150,000. This company deals in heating and mill supplies, and its officers are: President and treasurer, W. M. Pattison; vice-president, W. H. Smith; secretary, Arthur Jones.

#### DATE OF KENTUCKY MASTER PLUMBERS' CONVENTION DECIDED.

April 14, 15, 1913.—Annual convention of the Kentucky State Association of Master Plumbers, at Covington, Ky. The officers of the association are: J. J. Fitzgerald, Lexington, Ky., president; George Schardein, Louisville, Ky., vice-president; W. W. White, 606 York Street, Newport, Ky., secretary-treasurer; Geo. E. Morlidge, Newport, Ky., national state vice-president.



# Personal Mention



L. W. Tilden, formerly with the Central Foundry Co., of New York City, will hereafter represent the Detroit Brass Works, of Detroit, Mich., in the West and Middle West, as salesman calling on the jobbing trade.

Leon Seder, a well known salesman of plumber's brass goods, has recently accepted a position with the Best Mfg. Co., of Cleveland, O., to represent that company in New York state.

W. C. Haviland, of Aurora, Ill., secretary of the Illinois Master Plumbers' Association, was in Chicago on business last Wednesday and favored "Domestic Engineering" with a call. He reports the trade in the state optimistic over business prospects this spring.



J. F. Wulf, Milwaukee.

J. F. Wulf, vice-president of the Robert Rom Company, of Milwaukee, has recently been elected for the third time Grand Ram of Fold 10, United Bunch of Sheep. Mr. Wulf's pleasing personality and his ability to get things done have contributed to this honor materially. It is our pleasure to present herewith a likeness of Mr. Wulf, as he appears to his friends. His standing in the business world of Milwaukee and Wisconsin is indeed being recognized as his efforts for the upbuilding of the craft deserve.

Claude McElwaine, of the Van Camp Hardware & Iron Co., Indianapolis, Ind., has just been honored by election to the office of president of the Marion Club of Indianapolis. Mr. McElwaine's pleasing personality and popularity are responsible in a large measure, for this distinction.

## FLOAT VALVES MADE IN DETROIT.

The Detroit Metal Spinning Co., of 195 Monroe Avenue, Detroit, Michigan, manufactures a line of copper floats that are made without rubber seam. The company claims that in the course of manufacture the seams are finished in 5-ply. These floats are made in 4x5 in. oval,



Float Valves Made in Detroit.

4 1-2 in. round, 5 in. round and 5 in. round with flat side. The company also makes a line of zinc floats in the same sizes. This concern has been manufacturing floats and other metal stamping and spinning for ten years or more,

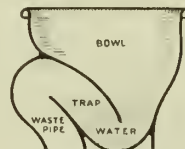
at Detroit. Further information regarding its line will be cheerfully furnished upon application, mentioning "Domestic Engineering."

## MURDOCK "BUBBLE FONT" FOUNTAIN AT KANSAS CITY.

The installation of a public drinking fountain by the Ladies Auxiliary of the Master Plumbers' Association at Kansas City, Mo., Sunday, March 9th, has aroused considerable interest through the country. It is, therefore, of interest to know that the fountain itself was supplied by the Murdock Manufacturing & Supply Co., Cincinnati, Ohio, being their "Bubble Font" drinking fountain. Their line of fountains is designed for outdoor as well as indoor use and should appeal to the plumbers, who will very soon this spring have calls for such installations. The manufacturers will be glad to send their description of the "Bubble Font" fountain upon mention of "Domestic Engineering."

## SANI-FLUSH FOR CLOSET BOWLS.

The Hygienic Products Co., of Canton, Ohio, manufacturers of Sani-Flush, have recently gotten up a circular entitled, "The Seen and the Unseen," which brings to the attention of both the plumbers and the owners the merits of Sani-Flush for cleaning the unseen parts of water closet bowls. In the circular they mention the fact that the incrustation which accumulates in the trap



What Sani-Flush Will Clean.

cannot be cleaned by physical means, that is, scrubbing, scouring or brushing, but that it requires a chemical solvent to loosen up and dissolve the sediment on the bowl. The visible, as well as the invisible, portions of the bowl are thereby cleaned without physical labor of scrubbing, thus purifying the bowl and keeping it sanitary. The manufacturers will be pleased to mail copies of this circular if the plumbers will write for it, mentioning "Domestic Engineering."

## LUNDY'S CYCLONE PLUMBERS' FURNACE.



Lundy's Cyclone Plumbers' Furnace.

The Double Blast Manufacturing Co., of North Chicago, Ill., has recently put on the market a new adaptation of its plumbers' furnace, which is, according to its claims, the latest design in such appliances. The company has given particular attention to the pump, which allows any degree of heat desired. This furnace is exceptionally well built and is intended for the rough usage to which it is likely to be put.

A circular on this new design will be gladly furnished by the manufacturers upon request, mentioning "Domestic Engineering."

## MODERN METHODS OF SEPTIC SEWAGE DISPOSAL OFFER PROFITABLE FIELD FOR PLUMBER.

The reports of health authorities in various states, counties and municipalities of this country offer abundant comment on the pollution of water supply and unsanitary conditions which surround the use of the privy vault and cess pool.

Not only do they endanger the health of individuals breathing impure air resulting from the proximity of



Andrews Septic Tank.

malodorous collections of organic and vegetable refuse, but the ground around the dwelling and the ground water which may be issuing from the surface of the earth at a considerable distance from the accumulation may be seriously polluted.

The modern way of avoiding this condition is to first liquify the organic matter and then distribute it over a wide area at a depth shallow enough to insure free action of the aerobic bacteria which thrive in the upper layers of the earth. This is accomplished by the use of a septic tank into which the sewage flows from the plumbing fixtures and it is so proportioned that the contents will be changed once in from eighteen to twenty-four hours.

Andrews septic tanks are made to connect in three different methods inside the basement, outside the base-

ment above ground, and outside the basement below ground. The latter method is the most common, but the others are equally serviceable and meet conditions which cannot be covered by the underground method.

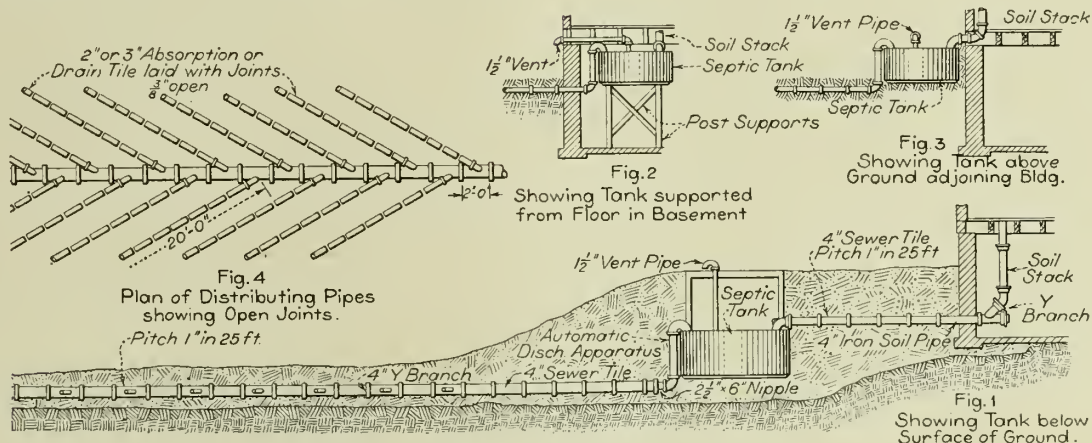
The main feature of the Andrews septic sewage disposal system consists of a single steel tank made of  $\frac{1}{4}$ -in. steel plate, with  $\frac{1}{4}$ -in. flanged heads substantially riveted so as to make it tight fitting. Two clean-out holes are provided at the top and a plugged opening at the bottom.

Two clean-out covers are fitted with heavy gaskets between, so that they will be absolutely tight fitting, like steam boilers. A special shaped cast iron intake fitting is securely studbolted to the head of the tank, also a cast iron discharge fitting of special design. This latter fitting is a part of the discharge apparatus which empties the tank automatically whenever full. The tank is divided into two compartments, the waste being received through the intake fitting on one side, which when full spills over into the discharge chamber. This latter chamber empties automatically approximately every twelve or twenty-four hours by means of an Andrews automatic syphon discharge pipe, the liquid being taken through this connection out to the filter bed surface of the soil whichsoever the conditions require.

It is possible to place these steel septic tanks above the ground, thereby enabling the tile and filter bed to be arranged quite close to the surface and is a feature which solves the problem of sewage disposal in wet soils.

The absence of odors is explained as follows: With a well proportioned plant there is no putrefaction, the organic matters being first simply resolved into liquid form and secondly distributed where they will be quickly and thoroughly broken up still further and absorbed by the soil and the plant life which it supports.

The necessity of accuracy in the proportions of the tank



Illustrating Methods of Installation of Septic Tanks.

ment above ground, and outside the basement below ground. The latter method is the most common, but the others are equally serviceable and meet conditions which cannot be covered by the underground method.

The main feature of the Andrews septic sewage disposal system consists of a single steel tank made of  $\frac{1}{4}$ -in. steel plate, with  $\frac{1}{4}$ -in. flanged heads substantially riveted so as to make it tight fitting. Two clean-out holes are provided at the top and a plugged opening at the bottom.

and of the amount of pipe allowed for distribution over the ground is pointed out, as a tank that is too large will not give satisfactory service as the flow through it will be too slow, hence the liquids will become putrid before they are discharged. On the other hand, if it is too small the contents will not become properly liquified and will be likely to clog the soil in the distributing fields and create a nuisance through the odors emanating therefrom.



The rapid growth of suburban districts making it impossible for many cities to project their sewerage systems fast enough to accommodate these districts and also the improved sanitary conditions in smaller towns and in country districts open a wide field for the plumber to sell and install such appliances and it is well worth his while to investigate what is offered in septic tanks and sewage disposal system.

Full information of the Andrews Septic Sewage Disposal System will be furnished by the Andrews Heating Co., Minneapolis, Minn., upon mention of "Domestic Engineering."

#### NEW CATALOGUE OF THE TIRRILL GAS MACHINE LIGHTING CO.

The Tirrill Gas Machine Lighting Co., 509 Fifth Avenue, New York City, has just issued a new and interesting catalogue on gas and water supply systems for country homes and buildings, the front cover of which is shown herewith. A diagram showing the Tirrill "equalizing" gas machine fully set up and ready for operation, is



Front Cover Design of the Tirrill Gas Machine Lighting Co.'s New Catalogue.

shown on page 2 of the catalogue. This machine makes the gas outside of the house and supplies it for lighting, heating, cooking and power, and is said to make standard and uniform gas instantly and continuously as wanted, without fire, danger, smell or smoke. It is always ready for use and may be operated with any kind of burner of suitable size. The Tirrill improved water wheel pump for use in operating the "equalizing" gas machine, is also illustrated and described. It is claimed by the manufacturers that this pump does away with the necessity of winding the weight. It operates automatically by water, and uses the water only in exact proportion to the quantity of gas consumed. An installation of the company's pneumatic water supply system is also shown and described, as well as its underground storage tanks and pumps. The catalogue also contains a number of illustrations reproduced from photographs of modern buildings and institutions in which the Tirrill "equalizing" gas machine is installed, including the state asylum for the chronic insane, at Binghamton, N. Y.; schools of natural science, Pennsylvania state college; state normal and training school, Potsdam, N. Y., and many country residences and hotels. A copy of this unusually attractive catalogue will be sent to any of our readers upon request to the Tirrill Gas Machine Lighting Co., mentioning "Domestic Engineering."

Diligence and hard work have their reward.—The Philistine.

#### THE DIRECT RADIATION CALCULATOR.

"The Direct Radiation Calculator," an exceedingly ingenious device of more than ordinary interest to the heating trade, has just been placed on the market by the Novelty Calculator Co., 124 East Moulton Street, Watertown, N. Y. By the aid of this "Calculator" it is a comparatively simple matter to determine the amount of direct radiation, either steam or hot water, needed to heat a dwelling under average conditions. The front dial shown herewith gives direct readings of the number of



Front Dial of the "Direct Radiation Calculator."

square feet of steam or hot water radiation required for 70 degrees difference between internal and external temperature. The back dial corrects for difference other than 70 degrees, reading direct for lowest average temperature reached in winter. The "Calculator" is lithographed on heavy celluloid of good quality and its size is 3 in. x 4½ in., small enough to carry in a vest pocket, but large enough to be of great value and convenience, and it costs only 50 cents.

#### UNCHANGED BY TIME.

They had parted years ago. Now in the deepening shadows of Scotland's twilight they met again.

"Here is the auld stile, Annie," he said.

"Ay, and here are oor initials that you carved, John," she replied.

The ensuing silence was only broken by the buzzing of an aviator overhead.

Honey-laden memories thrilled through the twilight and flushed their glowing cheeks.

"Ah, Annie," exclaimed John, suddenly seizing her fair, slim hand, "ye're just as beautiful as ye ever were, an' I hae never forgotten ye' my bonnie lass!"

"And ye, John," she cried, while her blue een moistened tremulously, "are jist as big a leear as ever, an' I believe ye jist the same!"—London Tit-Bits.



### MORE INQUIRY FOR PIG IRON.

The incentive for better buying of pig iron comes as usual from the Pittsburg district where large lots of steel-making irons have been purchased recently. No change in quotations has been made, and most prices seem to be the minimum figures with a new low level established in Birmingham of \$13. On the other hand, there have been important sales and inquiries for large lots which will come on the market later in the year. This is a significant feature and means that consumers have more orders on their books and are also willing to some extent to speculate in the future. It is expected that more activity will come in the Central West where the foundries have not covered their requirements as well as they have in the East. Quotations are as follows:

No. 2 Northern Foundry, New York.....	\$17.50 to \$17.75
No. 2 Plain Northern Foundry, New York .....	17.25 to 17.75
No. 2 Northern Foundry, Chicago.....	17.25 to 17.50
No. 2 Southern Foundry, Cincinnati....	15.25 to 16.75
No. 2 Southern Foundry, Birmingham..	13.00 to 13.50

### TIN MARKET NERVOUS.

London speculators in tin are selling futures freely and profess the belief that later in the year there will be a heavy falling off in consumption. It must be remembered that speculators throughout the continent of Europe and also on the British Islands are looking through smoked glasses and are most pessimistic. It may be that tin purchased now will show handsome profits when the time for delivery comes. Sales are being made in New York in five-ton lots at 46.50 cents.

### SPELTER.

Prices of spelter moved up slightly in response to a better demand. In New York prime Western brands are 6.40 cents, and in St. Louis 6.25 cents.

### LEAD.

The market in lead is steady at 4.35 cents in New York and 4.20 cents in St. Louis.

### AN IMPROVEMENT IN COPPER.

For the first time in many weeks there has been a slight advance in quotations for copper. Electrolytic sold at 15 cents, an advance of 1-8 cent over the previous quotation. Lake copper likewise sold at higher figures. This was chiefly because of some fair buying by European consumers. They are now testing the market and have purchased, as stated, some small quantities, but with the unrest in that section of the globe there is little hope that smelters there will pile up stocks in anticipation of future needs. Consumption in America is not as large as it was a year ago, and in the meantime production is being maintained at a prodigious rate. No stocks were

accumulated in February, but they are now sufficiently large to take care of any increased activity in the next three months.

### OLD METALS.

New York dealers prices are:

Light copper .....	\$12.00 to \$12.25
Strictly crucible copper .....	13.50 13.75
Uncrucible heavy copper .....	13.00 13.25
Uncrucible copper wire .....	13.00 13.25
No. 1 machine composition .....	12.00 12.25
No. 1 composition turnings .....	10.50 11.00
New brass clippings .....	9.50 10.00
No. 1 brass turnings .....	7.25 7.50
Cocks and faucets .....	9.50 10.00
Clean red car boxes .....	10.00 11.00
Light brass .....	7.12½ 7.25
Heavy yellow brass .....	8.25 8.50
Heavy lead .....	3.90 4.00
Tea lead .....	3.65 3.75
Scrap zinc .....	4.62½ 4.75
No. 1 pewter .....	33.00 33.50
No. 2 pewter .....	9.50 10.50
Close cut solder joints .....	8.75 9.00

### CONVENTION OF MARYLAND ASSOCIATION.

The convention of Maryland Association of Master Plumbers was held at Baltimore on Thursday, March 13th, with a good attendance. Election of officers and directors resulted as follows:

President—Samuel E. Houck.

First vice-president—John A. Graham.

Second vice-president—John Kirkley.

Recording secretary—August V. Eidman.

Financial secretary—Charles H. Frederick.

Treasurer—Daniel N. Sullivan.

Sergeant-at-arms—Patrick Sherry.

Directors—Frank B. Snyder, of Hampstead; T. H. Boland, August Malthan, A. J. Ahern and L. E. Mitchell, of Baltimore.

The following delegates were elected to attend the national convention to be held in Philadelphia June 17, 18 and 19: John Trainor, William H. Rothrock, Frank J. Knell, John B. Macfarlane, C. I. Putts, jr., Samuel Houck, Charles Frederick, John Graham, August V. Eidman, P. Sherry, August Malthan, W. H. Mitchell, T. H. Boland, L. E. Mitchell, John Kirkley, L. C. McGuire, F. P. Carey, A. W. Beam, T. J. Thaler, William Mylander, J. J. Price, Edward Wehrhahn, A. Schanze, J. B. Hagger, all of Baltimore, and F. B. Snyder, of Hampstead; J. S. Johnson, of Cumberland; L. B. Morgan, of Salisbury, and W. H. Deneen, of Frostburg.

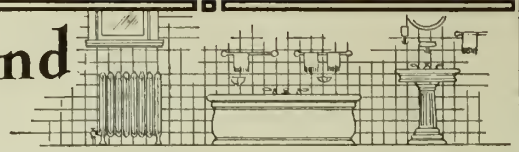
McPherson, Kans.—Wm. Brandon has opened a plumbing establishment in the Ray building on South Main street.

Newport, Ky.—The Kruse Plumbing Co. has been incorporated with a capital of \$5,000. The incorporators are: Albert Kruse, jr., Th. Kruse, Edward Kruse and Harry Kruse.

Rochester, N. Y.—The Central Plumbing and Heating Co., Inc., is the style of a new firm to engage in business at 236 Central Park. The president of the company is L. F. Zimmer, well known through his long association with the Rochester plumbing trades. The new company would like to receive catalogues from manufacturers and jobbers of plumbing and heating material.



# Among the Plumbing and Heating Contractors



## California

San Francisco.—The February building records in the leading cities of the Coast were rather disappointing, in several localities showing a decrease, both from the January record and from February of 1912. The San Francisco total last month was \$1,298,450, against \$2,062,001 for the previous month, and \$1,764,232 for the corresponding month last year. Los Angeles and Portland, Ore., showed each a decrease of about half a million. In the smaller cities, such as Oakland, Sacramento and San Diego, there was hardly as much activity as in January, but considerably more than a year ago. From the record of bank clearings, it is believed that February was a rather quiet month for business in general. There is no ground for discouragement, however, as crop prospects are good, and other fundamental industries, such as lumber and mining, are in more prosperous conditions than for several years. Moreover, the approach of spring is bringing renewed activity in the reclamation of large areas of arid or swamp land in the Sacramento and San Joaquin valleys, and purchases of materials and equipment for this work cannot fail to have a favorable reaction on the spring business.

A material improvement in the building line has been noted in the last week, which has been marked by the letting of many good sized contracts, not only in San Francisco, but in many other Coast cities. The tendency to delay on the part of builders seems to be giving way, and many other jobs on which figures have recently been taken are expected to come out in the near future. Deliveries of finishing materials for old jobs are rapidly increasing, and more activity is observed in all branches of the supply trade.

The annual convention of the California Retail Hardware Association, to be held in Oakland next week, is a matter of some interest to the plumbing trade, especially as many master plumbers in the country, and a few in the city, are also members of the hardware organization. Following the recommendation made last year, arrangements have been made for conferences between the executive committees of the two organizations to decide on matters of common interest, enabling them to re-enforce each other where action to a similar end is desirable, and at the same time to exert a reconciling influence where point of conflict between the two trades may appear.

The local trade is still facing the problems brought about by the sale of inferior goods and old materials taken from wrecked buildings. There is still a good deal of wrecking going on of temporary buildings put up in 1906, which are gradually being condemned and put out of the way by the Board of Health. In many such buildings the cheapest of plumbing supplies were used; but whether cheap or good, much of the material is being sold to all buyers by the wreckers, and naturally a good deal of it finds its way into unsanitary "run-in" jobs, installed by amateur plumbers. An effort is made to keep

a close watch to prevent such work, but of late years the city has spread out to such an extent that it is impossible to exert adequate control with the present force of inspectors, and evidence is not lacking that a substantial amount of profitable work is thus lost to the trade, not considering the menace to public health caused by insanitary conditions.

Notwithstanding the general complaint in the trade for the last few years, there is evidence that some of the plumbers have enjoyed a measure of prosperity. For instance, Frank J. Klimm, one of the leading local plumbers, is preparing to build a 7-story apartment house on Ellis street near Jones. The building will be of reinforced concrete, containing 20 apartments, each of which will be equipped with a very complete bath and lavatory outfit, while the building as a whole will be steam heated.

One of the largest plumbing jobs let here recently was for the 7-story Stewart hotel annex, taken by Fred W. Snook, at \$12,975.

## Minnesota

Minneapolis.—At present the plumbing and heating business is not very brisk. While there is a certain amount of business, there seems to be a lull in the building line which will soon be broken by the spring building. It is thought by some that it would be a good idea to appoint a state plumbing inspector in the state health department, who would have power to enforce sanitary conditions. There is a great deal of plumbing in the Twin Cities and throughout the state where the health of the public is continually at stake, and by installing up-to-date plumbing a large amount of sickness could be eliminated.

H. J. Warneke, formerly a member of the firm of The Warneke-Deringer Co., 501 Fourth avenue South, has withdrawn, accepting the position as manager of the Minnesota branch of the United States Radiator Corporation. His interests have been taken over by the Deringer Boiler Co., who will continue the business.

The Minneapolis Plumbing Co., 1420 Nicolett avenue, has secured the plumbing and heating in the four-flat building at 2415 Harriet avenue.

Keefer Bros., 640 Sixth avenue, North, were awarded the heating contract in the Kenneseth Israel Synagogue at Sixth avenue North and Lyndale. Connor Bros., 711 Sixth avenue North, were awarded the plumbing.

H. Keely & Co., 1029 Third street South, were the successful bidders on the plumbing in the large new Murphy garage at 13th street and Hennepin avenue.

Mr. Sherlin, of Minneapolis, has let the plumbing in the new lake home at Lake Minnetonka to Tibbetts & Wise, of Wayzata.

J. P. Adamson, 1920 University avenue, was awarded the heating contract in the Shields residence on Summit avenue, together with the contract to install a vacuum cleaning plant. He is also installing the heating in the power house at Hastings, Minn.

## Massachusetts

**Lenox.**—William D. Curtis, proprietor of the Curtis hotel, is to have extensive alterations made in his hostelry and has awarded the plumbing contract to William B. Bull.

**Watertown.**—The salary of the inspector of plumbing was increased to \$1,400 per year at an adjourned meeting of the town recently. The first proposition was to make it \$1,200 and speakers argued that the inspector should be paid as much as any member of the board of health.

**Hudson.**—Carl I. Stevens, of Marlboro, has opened a plumbing establishment in this town. Mr. Stevens has had 16 years' experience in the business and has been in business for himself in Marlboro for six years.

### THREE PROMINENT PLUMBING INSPECTORS IN NEW ENGLAND.

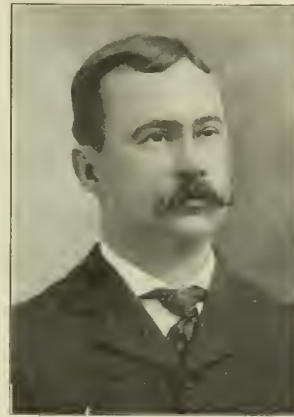
Three of the most well-known plumbing inspectors in New England, whose likenesses are shown herewith, were honored with election to important offices in the



H. H. Wilcox, Plumbing Inspector,  
Taunton, Mass.



Reuben S. Bemis, Plumbing Inspector,  
Providence, R. I.



Andrew J. Burnett, Plumbing Inspector,  
Melrose, Mass.

New England Association of Plumbing Inspectors at the recent annual meeting of this organization, as told in this column at that time. These gentlemen are: H. H. Wilcox, plumbing inspector at Taunton, Mass., who was elected president; Reuben S. Bemis, inspector of plumbing in Providence, R. I., who was elected first vice-president; and Andrew J. Burnett, plumbing inspector at Melrose, Mass., who was made chairman of the committee of ways and means.

## Pennsylvania

**Philadelphia.**—Jos. Scholl, 2712 Girard avenue, has been awarded contract for the plumbing on the apartment houses that are being erected at 4204 to 4214 Parkside avenue for F. A. Poth Brewing Co.

F. A. McLaughlin, 4028 Locust street has secured contract to install heating apparatus in the property at 211 S. 40th street for estate of S. Bennett.

Hoben & Doyle, 21st and Pine street have been awarded plumbing contract for the new Evans Memorial building

that is being erected at the corner 40th and Spruce street.

J. F. Hallinan, 52d and Haverford avenue, was the successful bidder on the plumbing for 31 new houses that are erected on Fitzwater street between 61st and 62nd street for Mr. Maloney.

H. W. Meier, 4th and Green streets, reports a good deal of under-draining work and is just starting on ten new houses on New Market street.

F. P. Dougherty, Broad & Passyunk avenue, is making extensive alterations to the plumbing and heating in Carpenter's Hall, 6th and Chestnut streets.

A. S. W. Clegg, 2nd and Tabor Road, Olney, Pa., is installing plumbing in a new residence in Lawndale, Pa.

Jos. McGinnis, 40th Street, above Lancaster, has contract to make extensive alterations in the plumbing system in the Cunningham Piano Factory.

Wm. McCoach, 1617 Sansom street, has been awarded the plumbing and heating contract in the new building which is being erected by the Keneseth Israel Congregation, Broad and Columbia Avenue.

Jas. F. Yerkes, Oak Lane, Pa., has been awarded heating contract in the property on 54th Street, east side of City line.

D. Gailey, 1524 Venango Street, has been awarded plumbing contract for new house in Logan, Pa.

Klonower & Jost, 1538 Cherry Street, has been awarded heating contract in the property corner Wayne and Seymour Street for Bert Smith.

### THE ANNUAL BANQUET OF THE MASTER PLUMBERS OF PORTLAND, ME.

Thirty members of the Master Plumbers' Association of Portland, Me., and their ladies attended the annual banquet of the association which was held in the Casino at Riverton Park, Portland, on Wednesday evening, March 5th. The affair was entirely informal and the dinner was followed by dancing. The affair was a social success. Among those present were: Mr. and Mrs. R. A. Godfrey, Mr. and Mrs. M. H. Myers, Mr. and Mrs. Frank A. Davis, Mr. and Mrs. Fred H. Stuart, Plumbing Inspector and Mrs. Charles O. Morton, Mr. and Mrs. W. A. Allen, W. A. Sawyer, Mr. and Mrs. Christopher Madsen, Mr. and Mrs. John M. Kane, Mr. and Mrs. George Stevenson, George W. Cutts, F. E. Wheeler, president of the Maine State Association of Master Plumbers, David A. Calhoun, Mr. and Mrs. P. A. Mahoney, Morris Yudeon, Mr. and Mrs. J. H. Hazelton, Mr. and Mrs. Harry Fuller.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

## Situations Open.

**WANTED—EXPERIENCED MAN** to represent large Cleveland Jobbing House as heating salesman. Must be experienced, good habits and well recommended. State salary. Address Box 936, care of "Domestic Engineering," Chicago. 3-22-29

**SALESMAN WANTED FOR TEXAS** territory. Men experienced in selling Plumbing and Heating Supplies. Give reference and record in first letter. HIGGINS COMPANY, SAN ANTONIO, TEXAS. tf

**WANTED—AN EXPERIENCED MECHANICAL** draftsman for designing all manner of power pumps, etc. Steady employment. State age and salary expected. Address Box 938, care of "Domestic Engineering," Chicago. 3-22-29, 4-5

**WANTED—BY CHICAGO CONCERN,** salesman to cover Northern Iowa, familiar with plumbing and heating business and with the trade in that part of the state. Must be capable in every respect. Address Box 939, care of "Domestic Engineering," Chicago. 3-15

**WANTED—FIRST CLASS PLUMBER,** Steam and Hot Water fitter. Position by the year for right man. Good wages. Address Box 490, care of "Domestic Engineering," Chicago. 3-22

## Situations Wanted.

**WANTED — STEADY POSITION BY** plumber, steam and hot-water fitter. 10 years' experience; steady, sober and reliable. State terms in first letter. Middle west preferred. Address Box 941, care of "Domestic Engineering," Chicago. 3-22

**WANTED—AGENCY ON A POPULAR** line of brass goods to the plumbing trade of New England; best of references. Address Box 942, care of "Domestic Engineering," Chicago, Ill. 3-22-29, 4-5-12

## For Sale

**FOR SALE — A MONEY MAKING** plumbing shop in a booming town of five thousand, Eastern Ohio. Desire to close out in thirty days. Address Box 937, care of "Domestic Engineering," Chicago. 3-22

**FOR SALE—WHOLESALE PLUMBING** and Heating Supply business in Chicago. Big mail order and city trade. Good reason for selling. Address Box 943, care of "Domestic Engineering," Chicago. 3-22

## Miscellaneous

**SELL YOUR SURPLUS COUPLINGS** and fittings. Write us. The A. & J. Mfg. Co., 567 W. Lake St., Chicago. tf.

## Government Proposals.

**TREASURY DEPARTMENT, OFFICE** of the Supervising Architect, Washington, D. C., March 8th, 1913. Sealed proposals will be received at this office until 3 o'clock p. m. on April 5, 1913, and then opened, for alterations in plumbing system at the United States post office and custom house, Galveston, Tex., in accordance with the specification and drawing enumerated therein, copies of which may be obtained from the custodian at Galveston, Tex., or at this office, at the discretion of the Supervising Architect. Oscar Wenderoth, Supervising Architect. 3-22, 29

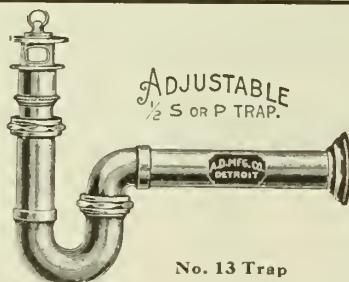
## WE PUBLISH:

**PRINCIPLES AND PRACTICE OF PLUMBING.** By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

**SEWAGE PURIFICATION AND DISPOSAL.** By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

## Address:

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago



No. 13 Trap

## YOUR EXPENSE

In installing Traps and Wastes is very much lessened by installing A. D. Manufacturing Co.'s line and this fact means added profits for you. All Castings are MADE OF NEW METAL, the TRIPLE NICKEL FINISH is bright and durable and we guarantee that they FIT THE FIXTURE PERFECTLY. Indorsed by the

leading Sanitary Engineers and Inspectors everywhere.

All leading jobbers of plumbing supplies can supply our line at factory price or we will ship direct if cash accompanies the order.

Send for Catalog and Master Plumber's Discount Sheet—it's free.

A. D. MANUFACTURING CO., Detroit, Mich., U. S. A.

## "Office Methods For The Plumber"

By F. S. PRIOR

### New and Instructive

A model text book on office management for the Master Plumber. Contains detailed instructions in regard to the requirements of a properly organized Office System. Treats of practical books of accounts; sales, estimate, cost and quotation records; time and material records; cost keeping on contracts, etc. An invaluable book for those wishing to keep practical and service-giving records. Profusely illustrated.

Price \$1.00 Postpaid

## DOMESTIC ENGINEERING

445 Plymouth Court, Chicago



## Our Arsenal Is Full A Repeater for Every Order The Bowlus Royal Water Closet

The **AUTOMATIC PNEUMATIC** Repeater, operates Positively and Noiselessly for Years.

One active part—Durability and long life. Neat—Sanitary.

Over thirty supply houses are among our new customers for February.

### GUARANTEED

Write us or consult your Jobber.

**THE BOWLUS MFG. CO.**  
Springfield, Ohio

## The Best Float Made

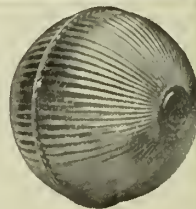
Double seamed—copper to copper.

Five ply metal at seam.

Cannot leak around spud.

Made in following sizes:

4x5" Oval, 4 1/4" Round, 5" Round, 5" Round with flat side.



We also make zinc floats in same sizes.

Write today for details

**Detroit Metal Spinning Company**  
195 Monroe Ave., Detroit, Mich.



Kindly quote "Domestic Engineering" in writing advertisers.

# DOMESTIC ENGINEERING

*A Weekly Record of Progress in Plumbing Heating Ventilation and all Matters Pertaining to Domestic Sanitation*

Whole No. 1059

CHICAGO, MARCH 29, 1913

Vol. 62, No. 13

PUBLISHED ON SATURDAY OF EACH WEEK BY THE  
DOMESTIC ENGINEERING COMPANY

445-447 Plymouth Court, Chicago.  
Long Distance Telephone: Harrison 754.

F. S. KENFIELD, Pres. F. P. KEENEY, V.-Pres. and Manager.  
E. R. FORD, Secretary.

#### EDITORIAL STAFF.

W. E. MARQUAM, Managing Editor. JOSEPH GRAHAM, Technical Editor.  
R. HERLOV, C. L. DAVIS, Associate Editors.

#### ADVERTISING REPRESENTATIVES.

FULTON S. KING.....Western Representative  
O. T. CARSON.....Central States Representative  
E. DE FOREST WINSLOW.....Eastern Representative

#### TERMS OF SUBSCRIPTION.

United States, Cuba and Mexico, \$2.00 per year.  
Canada, \$3.00 per year. Foreign, \$4.00 per year.  
Current copies, 10c each. Back numbers, 25c each.

Entered as Second-Class Matter at the Postoffice at Chicago, Ill.

"Domestic Engineering" says: To escape criticism, do nothing, say nothing, be nothing but the horse in the treadmill. Originality always has its enemies—then cultivate originality.

## SPRING MOVING TIME IS HERE.

IT has been said that the public estimates a man as he estimates himself.

Prosperity inspires prosperity, and the business man who would have his business increase as it should, must **appear** prosperous.

The appearance of the place of business of the plumber and fitter is admitted, by those who are competent to express an opinion, to be largely responsible for his success or failure.

The **location** of that place of business is equally important.

Why a business man who happens to have chosen plumbing and heating as his life work should intentionally select a dark and dingy basement or a back-alley room, and expect his customers to visit him there, is something that the broad-minded men in the trade can scarcely fathom.

"I can't afford a better location," is the usual plea.

There is a vast difference in the methods that are used by the successful master plumbers and fitters today and ten years ago.

They recognize the fact that attractive display windows and showrooms **compel** the attention of

those who should be customers for plumbing and heating goods.

And inversely, the fact that some men have successfully done this very thing is **forcing** their competitors to change their locations to more advantageous surroundings.

A sign of the times is evident in a resolution presented at the convention of the Indiana Master Plumbers' Association at Indianapolis two weeks ago.

This resolution urged all local associations and members to work for the removal of plumbing and heating shops from alleys and basements to more dignified and accessible ground floor locations.

"Can't afford it!" Such an excuse for a business man to make!

The customer sizes up the man who is to do his work by the front he puts up. If he "can't afford" to put up a respectable front, he "can't afford" to remain in the business.

The day is here when money-making possibilities in the plumbing and heating business are not to be had by mere ability to figure the lowest on a bid.

Competition? Yes, lots of it. But it's the competition of the man who is preaching sanitation by example—by display, in attractive form—of the goods he recommends—who is carrying off the plums.

The day of the plumber-mechanic has passed—the brighter day of the plumber-business-man is at hand.

Yes, there's time yet to get into the procession. And it's not such a difficult job, after all.

The supply houses and manufacturers will be glad to have you make the move, and many of them right now are offering encouragement along this line to their customers.

Perhaps you made this move long ago—and profited by it. If so, it will pay you to encourage your competitors to do the same—it will elevate the whole craft.

In such event, write us what you think about the advantage of good location and display of goods.

What "Domestic Engineering" thinks about the matter may be gathered from the graphic portrayal of the idea on page 375.



# Heating and Ventilating Bonwit-Teller Bldg.

Department Store Heating and Ventilation is Being Given  
Serious Consideration by Architects and Engineers

**T**HE Bonwit-Teller Building, is an eleven story office and store building located on Fifth Avenue at the southeast corner of Thirty-eighth Street. The first four floors and basement are occupied by Bonwit-Teller Co's. department store.

The high pressure part of the plant consists of three horizontal return tubular boilers of 200 horse power capacity.

The boilers are connected by two mains, one of these the main steam header, the other an auxiliary main, run as shown on plan, Fig. 1.

The main line is intended to be used for general service and is connected to the engines, pumps and refrigerating machine and, through reducing valves, to the indirect stack, heating system, and hot water heater.

The auxiliary connection is taken out between the two valves of the boiler connection and a third valve placed on this connection.

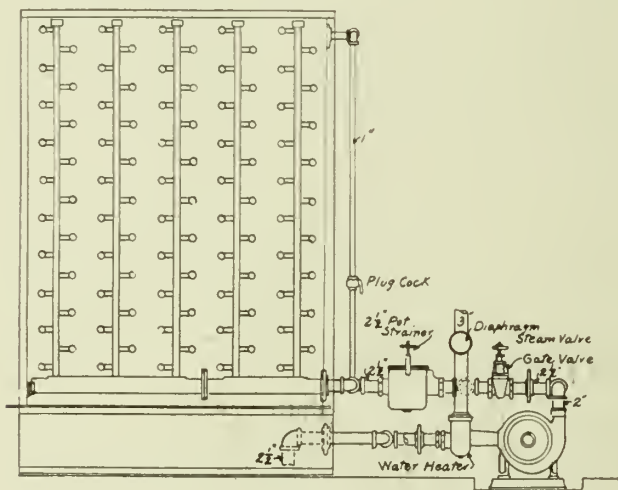


Fig. 2. Air Washer, Showing Connections.

A Cochrane steam separator and receiver is placed on the main steam line just before it enters the engine room, and a steam meter is installed between the entrance of the boiler connections and the steam separator receiver.

The steam separator is dripped and discharged into a "Utility" combination feed water heater, grease extractor, etc., and the end of the main is dripped, separately trapped and discharged into the high pressure drip line and thence back into the Utility tank.

Connections from the high pressure system with the heating system is made through a reducing valve, which is bypassed and arranged to reduce from 120 pounds working pressure to  $1\frac{1}{2}$  pounds or even as low as 2 inch vacuum on low side.

From the exhaust of the engines and pumps, exhaust steam connections are made to the main exhaust pipe, which runs overhead in the engine room to the Utility tank. The exhaust main rises and passes through the Utility tank, thence to the vent stack to the roof, where it is provided with a "Burt" copper exhaust head.

The back pressure valve is placed just under the roof at the top of this vertical exhaust pipe, with branch to heating system taken off below it.

This branch supplies a main running in the roof space to down feed risers on the south, east and west sides of the building, the risers on the north side feeding up from a main in the basement.

This division of the heating system was made necessary partly because of having a main in the basement on the north side to feed indirect stacks, etc., and partly because of difficulty in getting pipes up past the immense girders which cross the entire west front of the building at the second floor. The entire west wall is carried on the two outside columns by means of two 60 ton girders placed side by side and each seven feet deep. The girders are the largest ever used in this kind of building.

The coils over the show windows are connected from the mains in the basement, valves being placed in the basement.

A separate live steam line is run to the roof tank house, with a separate return.

The coils in the skylight on the top floor are connected to the exhaust line just before it connects with the heating main running around the top floor ceiling.

The risers are dripped at the bottom into a gravity drip line running to the Utility tank, which also receives high pressure drips that have been trapped, all clean low pressure drips, and the additional water required by the boilers. The boiler feed pumps and injectors will also draw their supply of water from this tank, but will have separate cold water connections besides.

The greasy drips are led into the blow-off tank, located below the sewer level, with an automatic pump for discharging the contents to the sewer.

A Webster vacuum system has been installed. The radiators and coils are provided with automatic thermostatic valves, and the steam condensed is carried away by return risers, starting from the highest radiators or coils and increasing in size as connections are made until they reach the cellar, where they connect into return mains, which run along the ceiling of the cellar, dropping into the sub-basement and connecting with automatic vacuum pumps through an exchanger which serves the double purpose of cooling the returns to help vacuum pump and of heating cold water feed to hot water tanks.

The vacuum pumps discharge into an air separating tank located near the ceiling of the cellar, from which the water of condensation flows by gravity into the Utility tank.

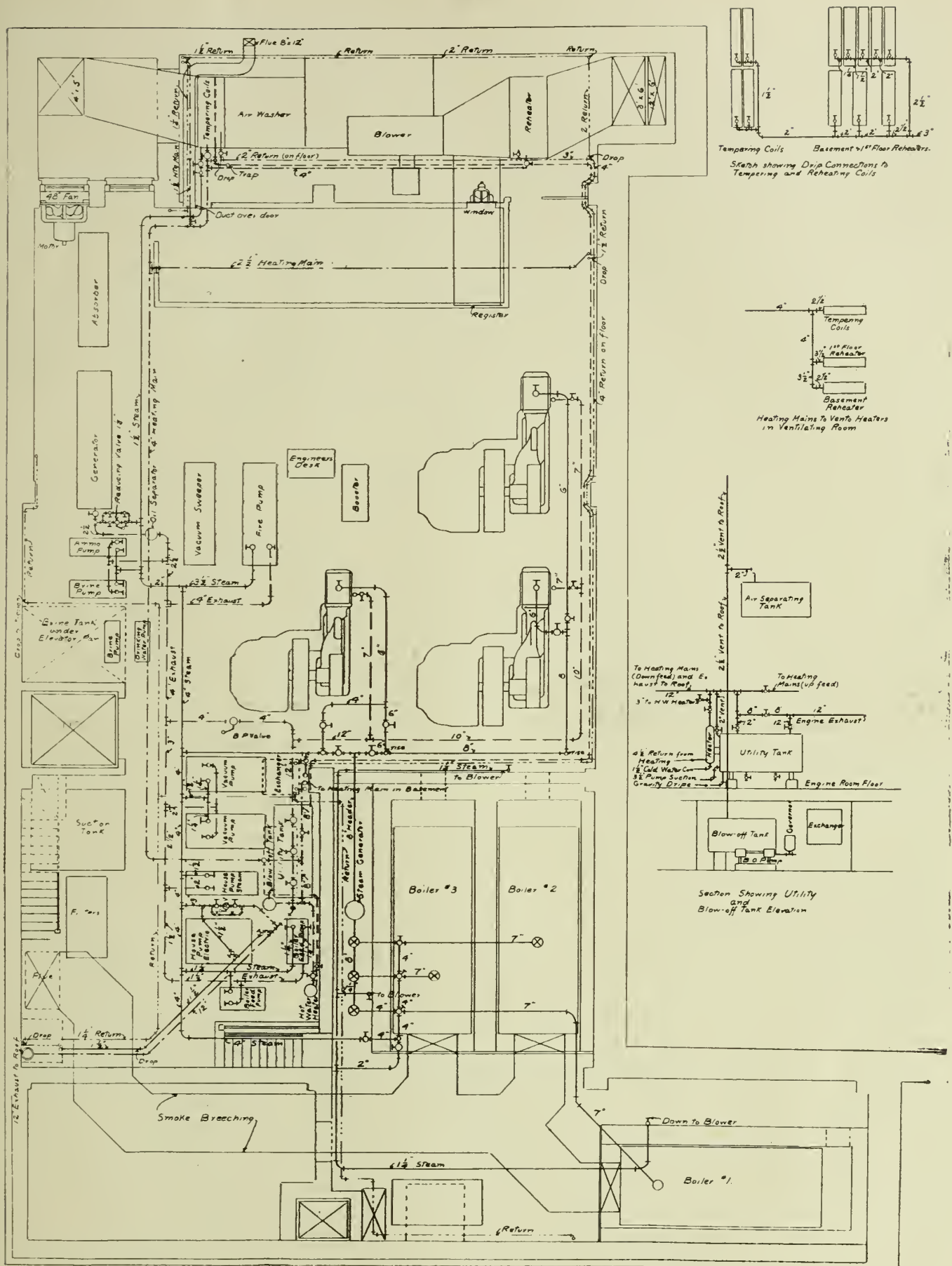
## Indirect Heating and Ventilation.

The first floor and cellar are heated by air taken from the court at the southeasterly side of the building, through tempering coils, thence through an air washing chamber into a fan blower, discharging through reheating coils into galvanized iron ducts to registers.

The tempering coils connected with the air washer consist of narrow "Vento," cast iron heaters, 50 inch section, thirteen loops in stack, 5 inch centers, two stacks deep and double tier.

The air washer installed is a Carrier, capable of handling 23,300 cubic feet of air per minute.

The fan connected with this system for heating and ventilating cellar and first floor is fully housed, and has a top horizontal discharge, having a capacity of 22,100 cubic





feet of air per minute, direct connected to a 7½ horse power motor.

The reheating stacks for first floor are 60 inch section, 16 loops to stock, 5⅜ inch centers, 5 stacks, single tier.

The reheating stacks for cellar consist of 40 inch section, 12 loops in stack, 5 inch centers, 2 stacks, single tier.

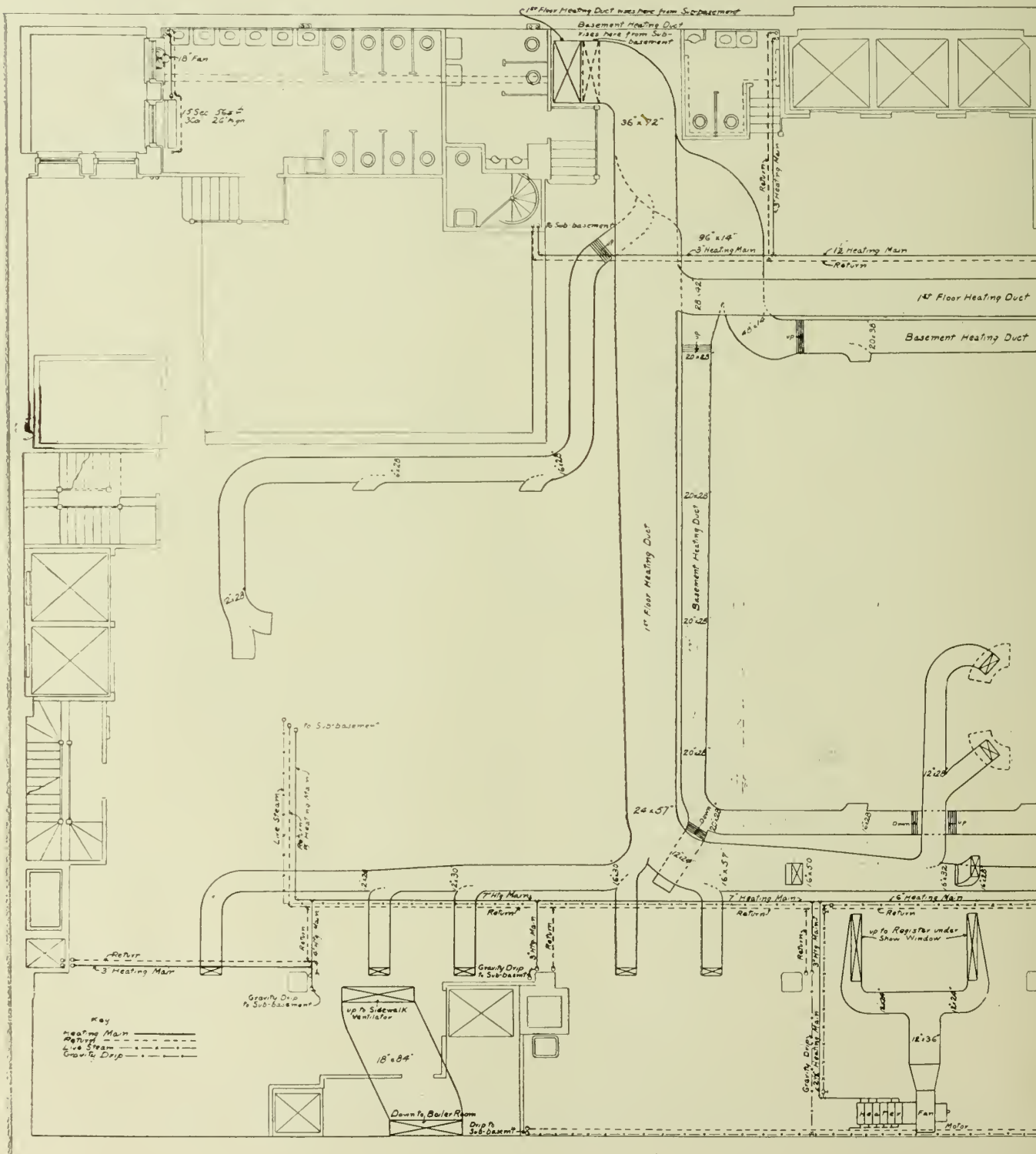
Deflectors are provided in the ducts, so that the cellar duct can be used to supplement the first floor supply.

Some of the registers on the first floor are placed in the side walls about 8 to 10 feet from the floor, others are located in fixtures under counters. Screened openings are used in the cellar.

The front and carriage vestibules on the first floor are heated by auxiliary fans drawing from the basement through reheating coils and discharging at high velocity from the fan. This velocity is reduced by enlarging ducts before reaching the register faces in the vestibules.

This velocity at fan is necessary to maintain pressure in vestibule to prevent strong winds blowing through into the store. A sufficient quantity of hot air is introduced to change the air in the vestibule every half minute.

These two fans have each a capacity of 2,590 cubic feet of air per minute, at 1¾ ounce pressure. They are direct connected to 3 horse power motors.



Basement Plan Bonwit-

The reheaters used in this connection consist of 40 inch section, 8 loops in a stack,  $4\frac{3}{8}$  inch centers, 6 stacks, single tier.

The separate heaters for front and carriage entrances have separate live steam connections as well as exhaust steam connections.

The indirect heating coils are composed of "Vento" cast iron radiation which is automatically controlled by the Johnson system of temperature regulation.

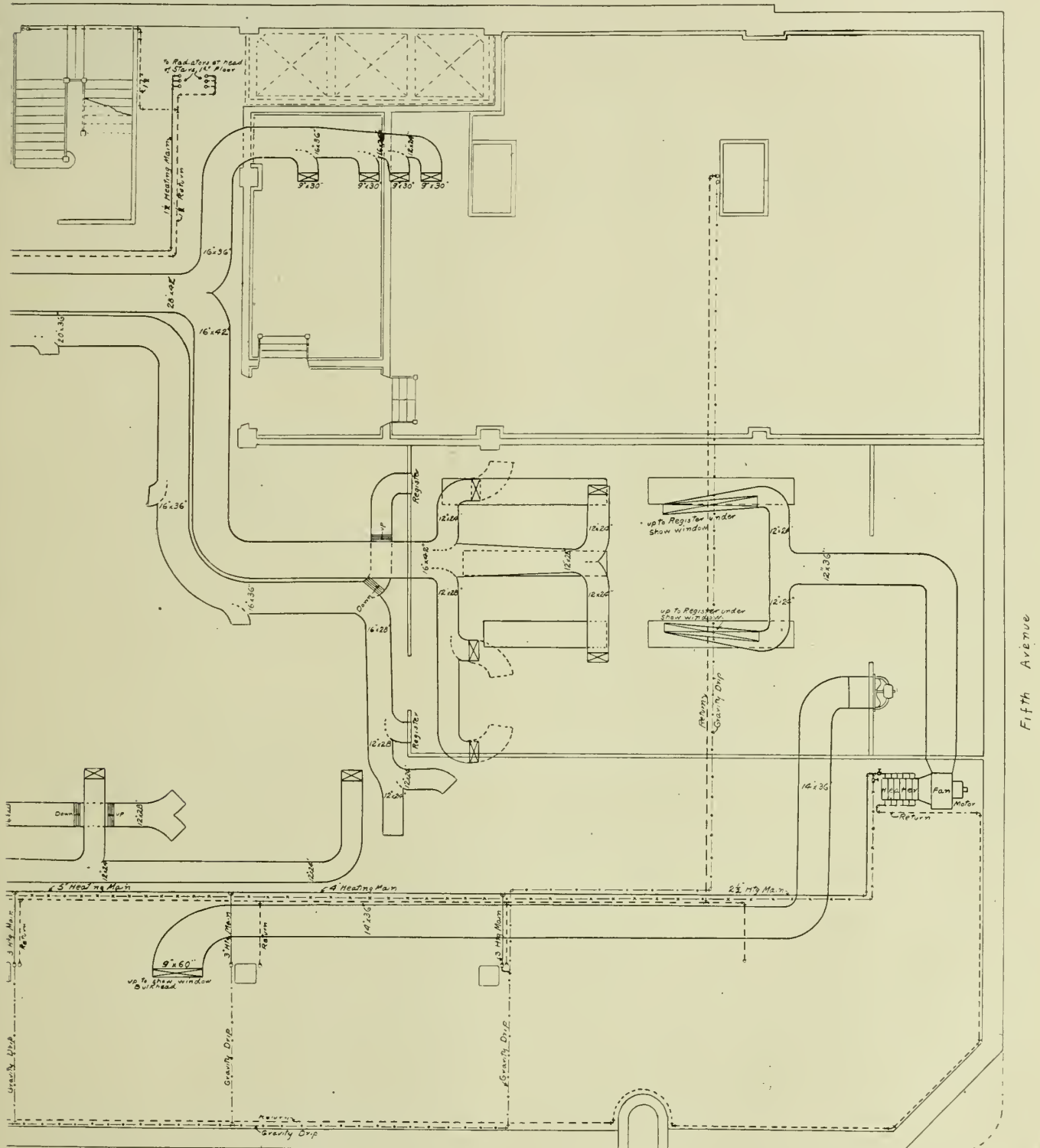
The main indirect stacks are connected to the main in sub-basement. On all the indirect stacks, the sections getting the coldest air are connected by valved connections

to live steam lines at 80 pounds pressure through by-passed reducing valve. The drip from these stacks has a separate thermo trap, with discharge leading to vacuum pump.

The heaters are encased in steel plate casings and connected to intake or exhaust of fans.

The engine room is ventilated by exhausting through a steel plate fan into space around smoke flue. This fan is driven by a  $2\frac{1}{2}$  horse power motor and has a capacity of 7,950 cubic feet of air per minute.

Fresh air is drawn down from the court above and blown in by means of a 48 inch disc fan running at 200



Teller Building, Showing Heating Ducts.



revolutions per minute with a  $1\frac{1}{2}$  horse power motor. The fan has a capacity of 8,590 cubic feet of air per minute.

In addition to these two fans a 24 inch disc fan drawing from the engine room blows air into the storage battery room when battery is being charged to force acid gases out of battery room through tile flue.

The chimney draft pulling air into the furnaces is depended upon to ventilate the boiler room, fresh air intake ducts being run down from sidewalk above into firing room.

All of the fans installed were "Sirocco," American Blower Co., make.

Ducts more than 2 feet wide and less than 6 feet wide, were suspended from ceiling, and vertical flues more than 2 feet wide, are of No. 22 gauge, and small ducts are No. 24.

Wherever a reduction in area or a branch is taken off, a pivoted deflector with handle and rod is provided.

The building was designed by Buchman & Fox, Architects, New York. P. R. Moses, E. E., New York, was the consulting engineer and laid out the heating and ventilating work. The heating contractors were Gillis & Geoghegan, New York.

### BEST POLICY.

To advertise goodness and not badness is a right object for every man or woman or child, whether directly connected with a printing press or not. The words we speak advertise one or the other. The choice may be made every time we open our mouths. "Advertising Goodness," then, is the appropriate title of a sketch in Good House-keeping magazine which is written with the avowed intention of telling what the writer knows about the extent to which the Golden Rule is nowadays practiced in the business world.

The writer starts off with saying that he wants to be good and knows that the world wants to be good. He has no way of helping the world to be good in crowds, but he can begin with himself and make all that he does and says and is really good. He can also take grateful cognizance of all the goodness he finds in others.

So he proceeds to tell an amazing story of his plumber. Called on to make some changes in the pipes of the house and street connections the plumber agreed to do the work for a certain sum. Next day he came to tell the house owner that what was needed was to remedy a defect in the city's piping, that the city would do this without cost to the householder, and thus the plumber gravely bowed himself out of the job. The writer does not remark on the sad fact that such a piece of simple honesty should be thought worthy of comment. He is only too glad to have such a bit of unselfish honor to proclaim to the world.—"The Christian Science Monitor."

A man stepped into a plumbing shop the other day to purchase a lavatory intending to have it installed in his home. The Master Plumber showed him several that were in the show room, and gave him prices on them, also explaining that apron lavatories were more frequently used in residence work although they cost a few dollars more than those without an apron, but he said the appearance of the fixture would more than offset the difference in the cost. With this information the gentleman left promising to be back after conferring with his wife. Several days later he returned and said that they decided, for the slight difference in cost, to select the lavatory with a "petticoat" on.

### PUBLIC COMFORT STATION, U. S. RESERVATION, NIAGARA FALLS, N. Y.

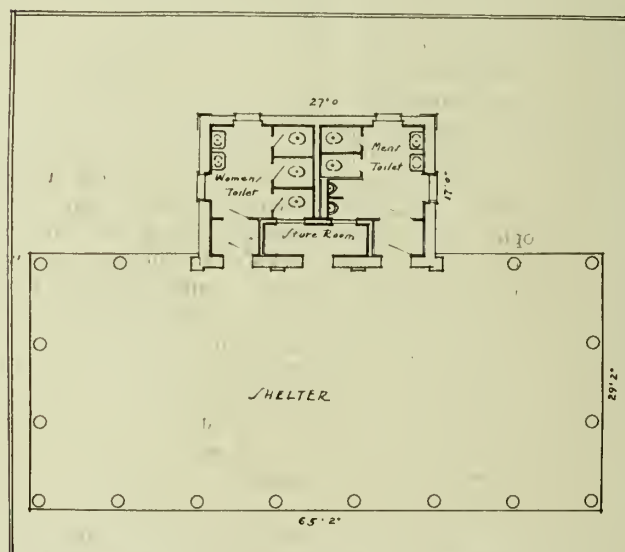
While the city of Niagara Falls, N. Y., does not claim a public comfort station, on the U. S. Reservation, however, the state maintains six sets of toilet accommodations for the use of the traveling public, three on the mainland and three on Goat Island.



Public Comfort Station, U. S. Reservation, Niagara Falls, N. Y.

The accompanying photograph and plan show one of these comfort stations erected near the Three Sister Islands, at a cost of \$10,000. It consists of toilet rooms opening on a broad shelter veranda. Owing to the size and arrangement of the rooms, it was impossible to obtain an interior photograph.

The women's side contains three water closets and two



Plan of Shelter and Comfort Station, U. S. Reservation, Niagara Falls, N. Y.

basins. The men's toilet contains two water closets, two urinals and two basins.

The shelter veranda has an attractive appearance, as seen from the photograph. It is 65 feet long by 29 feet deep.

The building was designed by Franklin B. Ware, state architect.

Freeport, Ill.—The Evans Plumbing & Heating Co. has been awarded contract for plumbing and heating a large hotel at Escanaba, Mich.

Marshfield, Wis.—Alex Mettelka will install plumbing and heating system in building on N. Central Avenue, owned by Joseph Seidl.

New Castle, Ind.—The New Castle Plumbing & Supply Co. has been awarded contract for the heating and plumbing of the new Burk building on W. Broad Street.

# Report of Ohio Inspector of Plumbing

Conclusion of Address Before Master Plumber's Association at  
Toledo, Ohio, by William C. Groeniger, State Plumbing Inspector

## Elevation.

It is my earnest belief that all who are connected directly or indirectly with the plumbing business, whether master plumber, journeyman plumber, plumbing inspector, trade paper, manufacturer, supply house or salesman, should join hands and center our activities and efforts toward a more thorough education of the general public upon the merits of sanitation in its relation to high class, efficient and economical plumbing.

The trade papers of our country are doing a great work and should be commended, but their work is mostly confined to the education of the plumbers themselves and does not reach the general public.

My experience has convinced me that the general public are very much in need of a thorough education upon sanitation, and I am also of the opinion that those engaged in or at the business must take up this work by city, state and national organization. It is necessary that many of the existing unsanitary and unhealthy conditions be brought to the attention of the public in a forceful manner.

The question will arise, "How can this be accomplished?" Stereopticon views, showing the unsanitary condition on one hand and the sanitary on the other, accompanied by lectures, is one suggestion. The materials for these views are plentiful, could be collected with but very little cost, and there are hundreds of men in the business who are capable of giving the subjects justice.

The motion picture can be found in every community and could be used to advantage to bring home to the citizens the benefits of honest, competent, efficient and economical plumbing in its relation to the convenience, comfort and health of the people, and show the advantages to be gained over defective material, unsanitary, reckless and incompetent workmanship which in some cases amounts to criminal carelessness. What could be more impressive or convincing than to have a series of pictures of this nature flashed upon the screen and shown to city councils, legislators and others who are authorized to enact laws?

A word picture, no matter how plain or interesting it is made, will never take the place of the picture that is flashed before the eye. The latter will be retained by the memory long after the former is forgotten.

People who are not trained in the matter of sanitation cannot be expected to take cognizance of these conditions unless they are brought to their attention.

It usually requires a noise of some kind to awaken people to existing conditions. If it requires a noise to elevate the plumbing business to its proper plane of importance, I believe we should begin to make that noise. The effect of unsanitary plumbing does not make a noise. It is an invisible menace that is always present.

It is regrettable that the department did not have the time nor apparatus for taking photographs during the past two years. I could have collected sufficient data to place before you gentlemen conditions that existed (and I am certain that more do exist) that would have been very interesting to you, and would be positively convincing of the necessity of state plumbing laws and plumbing inspection.

## Proposals for Changes in Part IV—Sanitation.

During the year there were many requests to the State Board of Health to change the express provision of the code by allowing more fixtures to be added to a given size waste

pipe; to permit a lesser grade of brass pipe; to permit a device that is prohibited; to change the wording of a section and to permit a smaller size pipe than is provided by law.

By order of the board, the entire matter was referred to the attorney general, whose opinion is as follows:

## Opinion.

Columbus, Ohio, December 7, 1912.

State Board of Health, Columbus, Ohio.

Gentlemen:—I beg to acknowledge receipt of your letter of recent date, in which you state:

"The State Board of Health desires to know:

"1. To what extent, if any, the board has authority to allow the substitution for a device, fixture or construction, specified in Part IV of the Ohio State Building Code, being Sections 12600-137 to 12600-238, of some other device, fixture or construction, that test or experience has shown to be equal in efficiency to that specified.

"2. How limited or how broad are the powers of the board in the definition of what is comprised in the words 'device,' 'fixture' and 'construction'?

"In reply to your first inquiry I desire to say that Section 12600-277 provides:

"Where the use of another fixture, device or construction is desired, at variance with what is described in this statute, plans, specifications and details shall be furnished to the proper state and municipal authorities mentioned in Section 1 for examination and approval, **and if required, actual tests shall be made**, to the complete satisfaction of said state and municipal authorities, that the fixture, device or construction proposed **answers**, to all intents and purposes, the fixture, device or construction hereafter described in this statute, instead of actual tests. Satisfactory evidence of such tests may be presented for approval with full particulars of the results, and containing the names and witnesses of said tests."

It is a rule of construction, well known to the law, that a statute must be constructed with reference to the whole system of which it forms a part. It was evidently the intention of the legislature, in enacting the section quoted, to vest a discretionary power in the officers designated in Section 1 of the building code, whose duty it is to enforce the provisions of Part IV of said code, namely, the State Board of Health or building inspector or commissioner, or health departments of municipalities having building or health departments, **when acting in conjunction**, to approve some proposed device, fixture or construction, which they may find answers to all intents and purposes the fixture, device or construction, specified in said building code, under said Part IV. In my opinion, said Section 12600-277 is directory as to the powers of said officers, heretofore enumerated, as to the approval of the proposed substitution therein specified. The statute itself vests a certain power or jurisdiction in the State Board of Health and the municipal officer to approve and grant the right to the use of some other device, fixture or construction found by them to answer, to all intents and purposes, the fixture, device or construction specified in said code.

There can be no doubt as to the right of the legislature to vest said public officers or boards with such power, and the only remaining problem in your question is as to what extent, if any, the board can go in exercising this power. As the act makes the power discretionary, it is my opinion that



so long as the respective officers **acting in conjunction** upon any proposed substitution are satisfied that the same will answer, to all intents and purposes, for those devices, fixtures and constructions specified in the statute, they may grant the permission to substitute.

I am further of the opinion that the power of said board and municipal officer, specified in Section 1, to allow a substitute, extends not only to the kind or class of fixture, device or construction, but to the substance constituting the same or the method in which it is placed. In other words, the power extends to the allowance of a substitute for any of the enumerated devices, fixtures or constructions as to the material and workmanship.

As to your second question, namely:

"How limited or how broad are the powers of the board in the definition of what is comprised in the words device, fixture and construction?"

I desire to say as to the first, namely, the device, that it would mean not only the manner in which it is devised or formed by design, but the substance of which the same was manufactured or constructed; as to the second, namely, the power would extend to the designation of the kind of fixture that should be substituted in the place of that specified in the statute, not only as to the material, but as to the method of its being attached or made a permanent appendage to the whole system of plumbing which is to be used; and as to the third, to-wit, construction, it is my opinion that the meaning to be given it is the manner of putting together the parts of the sanitary plumbing system to be installed, as provided in said code, so as to give to the whole its peculiar form.

In conclusion, it is my opinion that the powers of the board, **when acting in conjunction** with the municipal authorities specified in said Section 1 of said building code, are broad in their nature, and must be given the liberal construction which will give the greatest effect possible to the code in general as a whole. But, at the same time, the power should not be exercised, even with the discretion vested by said statute, unless said substitution meets, as to all intents and purposes, the fixture, device or construction specified in the code, and particularly to the construction, installation and inspection of plumbing and drainage.

Yours very truly,

(Signed) Timothy L. Hogan,

Attorney General.

It will be noted that the attorney general's opinion does not agree and is contrary to the decision made by Cleveland Board of Appeals and specifically states that municipal and state authorities, **when acting in conjunction**, may approve some proposed device, fixture or construction which they find answers to all intents and purposes the fixture, device or construction specified.

#### Ohio State Plumbing Code.

The state plumbing code, like most other movements upon which all people cannot agree, has been the object of much criticism.

The state inspector of plumbing has also been criticised for not approving proposed interpretations, whose purpose was to read into the law and give special privileges to certain patented articles.

I wish to be placed on record as favoring progressive and economical plumbing laws that are efficient. During my administration as state inspector of plumbing I intend to use all my efforts toward securing a universal, minimum state plumbing code. My annual report contains a recommendation that funds be appropriated for research and tests that will prove in facts and figures the proper method of installation.

If the state plumbing code contains any principles that are

exorbitant and unwarranted I want to be the first one to say that we were mistaken and to have the same corrected. I do not, however, favor a false economy.

We do not claim that the law is perfect, but we do believe that with the advice and criticism we will reach the point where we can say that we have a code that is simple, economical and efficient.

It should be remembered that in drawing a state code more than one city must be taken into consideration. At present we have thirty cities with local plumbing inspectors and local plumbing laws, and I trust that in another year this total will reach sixty.

The department has repeatedly invited criticism and recommendations from plumbers and plumbing inspectors, and in order to give any and all an opportunity to be heard invited them to send representatives to a conference held in Columbus January 2, 3, 4, 1913.

The conference was turned over to your sanitary committee and the suggested amendments were gone over and discussed.

On February 6, 7, 1913, your sanitary committee again visited Columbus and went over the entire code, section by section, discussed each in its turn, and the code is now being prepared to be submitted to the Building Code Commission for their ratification. The code has been broadened in many respects and I trust it will meet with your approval.

#### General.

Reviewing the results generally, I may say they are very gratifying. That conditions have been improved goes without saying, as each institution visited, when recommendations are made for the betterment of sanitary conditions, means some improvement and some benefit to those intended to be beneficiaries.

Those directly in charge of state and county institutions should always bear in mind that "low first cost and employment of men to install and repair plumbing who are not versed in the practice is often mistaken for economy, as frequency of repair and deterioration of cheap and defective material and faulty workmanship will more than offset the initial saving."

The department was created and laws enacted in order that the state might take official cognizance of the unfavorable conditions of plumbing throughout the commonwealth, often very dangerous to life and most injurious to health.

As the work progresses and the full intent of the law is made more manifest, with the co-operation of architects, engineers, superintendents of institutions, local plumbing inspectors, boards of health and plumbers, it is our hope that we can interest all good citizens in the sanitary construction of plumbing in its relation to health and economy.

In conclusion, I desire to extend to the delegates and members of your association, to the members of your state sanitary committee, to your president and secretary, my sincere thanks for the cordial treatment and attention accorded me at all times, and to assure you all my appreciation of your assistance and advice, which has been so beneficial to me in the work of the department.

Brookings, S. D.—Rio Miner and R. L. Ostrander have made arrangements to go into business under the firm name of the Brookings Plumbing & Heating Co. The company will occupy the basement of the Press building and the necessary alterations are already under way.

West Lafayette, Ind.—Bradbury, Martin & Cass is the style of a firm recently incorporated with a capital of \$10,000 to conduct a general plumbing business. The directors are: Albert E. Bradbury, Samuel F. Martin and Earl R. Cass.





DOMESTIC ENGINEERING

The Spring Moving Season Is At Hand. What Is Your Next Move?



# Questions and Answers

## DESIRES PLANS OF PLUMBING DETAILS.

Editor "Domestic Engineering":—Please show by sketch a good way to set up sink and lavatory, back to back, trap for each. Also what is a loop vent?

Lynn, Mass.

I. M. M.

In answering the first part of "I. M. M.'s" inquiry, we would say that the very best way to connect up the two

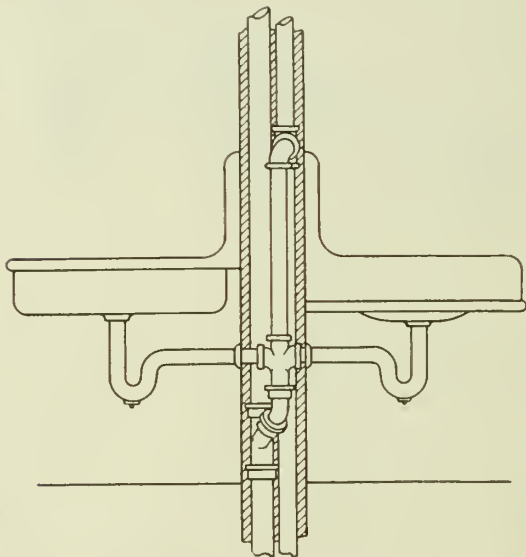


Fig. 1.

fixtures that he names, back to back, is by means of a continuous vent connection, shown in Fig. 1. In fact, it is on just such work as this that the continuous vent appears to its greatest advantage. Furthermore, by means of such a connection, a considerable saving, in stock and labor, can be made over the connections ordinarily used.

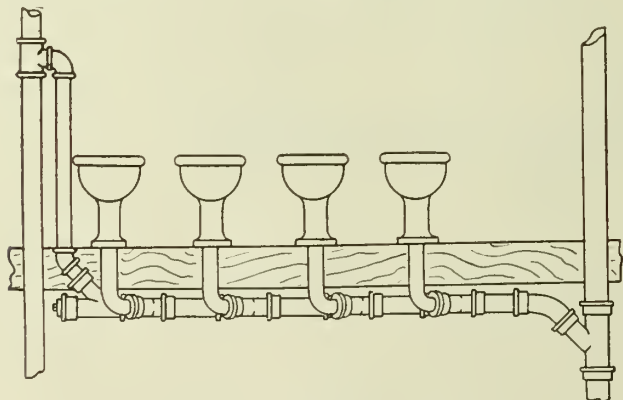


Fig. 2.

The loop vent is merely a modified form of the circuit vent. In Fig. 2 we show the regular form of circuit vent, applied to a line of water closets. It will be noted that the soil stack is at one end of the line, and the main vent stack at the opposite end. In the event that there is sim-

ilar work on floors above, or floors below, the same connections as here shown would be made.

Where the two stacks are at the same end of the line, however, the vent extension, in order to enter the main

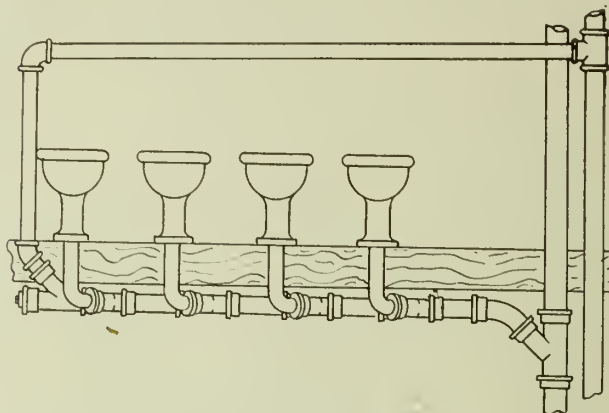


Fig. 3.

vent stack, must be looped back, over the fixtures, and from this fact the vent gets the name "loop," although it is not different in principle from the circuit vent.

## WHAT IS WRONG WITH THIS INSTALLATION?

Editor "Domestic Engineering":—Enclosed find sketch, marked Fig. 1, showing a radiator connected to a range boiler for the purpose of heating bathroom. This radiator

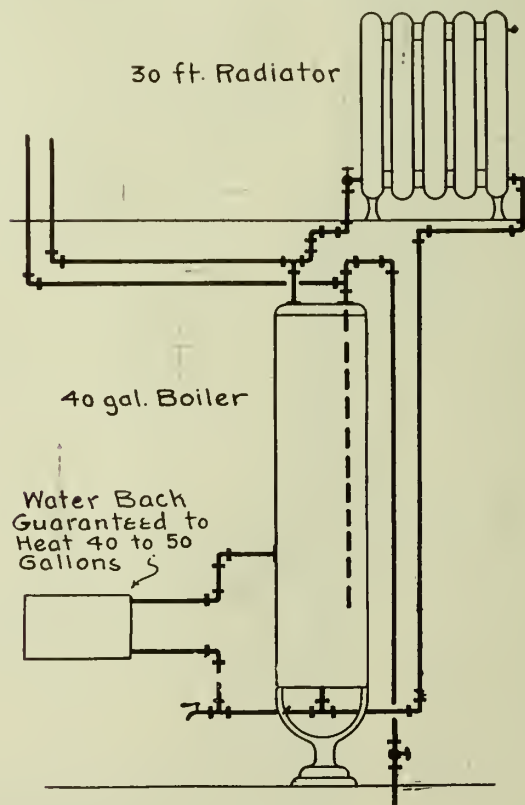


Fig. 1.

is about over the boiler on the floor above. The "side arms" from water back to boiler never get warmer than what you can hold your hand on same, the temperature of water being about 120 degrees after a heavy fire of a couple of hours. The water back is clear and all piping

is free from traps, etc. Does the water back need a partition?

Stony Point, N. Y.

C. T.

So far as correspondent's sketch shows, there is nothing wrong with the connections that he has made, and we must look elsewhere for the trouble.

The fact that the water front is "guaranteed" to heat 40 to 50 gallons of water does not prove that it will, and we are inclined to believe that this is the trouble.

Poor results from water fronts come sometimes from the use of a wrong size of coal, from ashes banking against the water front and from poorly kept fires or thin fires.

We do not know how the water front is located, but would say that best results are obtained when it is located on the side toward which the draft carries, as it then gets the heat of the hot gases which strike against it, as also from the hot coals against it. When on the opposite side of the fire-box, however, it not only gets no heat from these gases, but the fire itself is not so hot there.

Notwithstanding the fact that many water fronts without partitions are in use, the partition is certainly of advantage, as by means of it the water entering the water front is forced to pass through a greater distance in contact with the heated surface than in the case of those water fronts which have no partition.

Possibly the use of a coil of suitable size would bring better results than the water front.

#### IS THIS ARRANGEMENT UP-TO-DATE?

Editor "Domestic Engineering."—Kindly let me know through your valued paper if the enclosed sketch is the

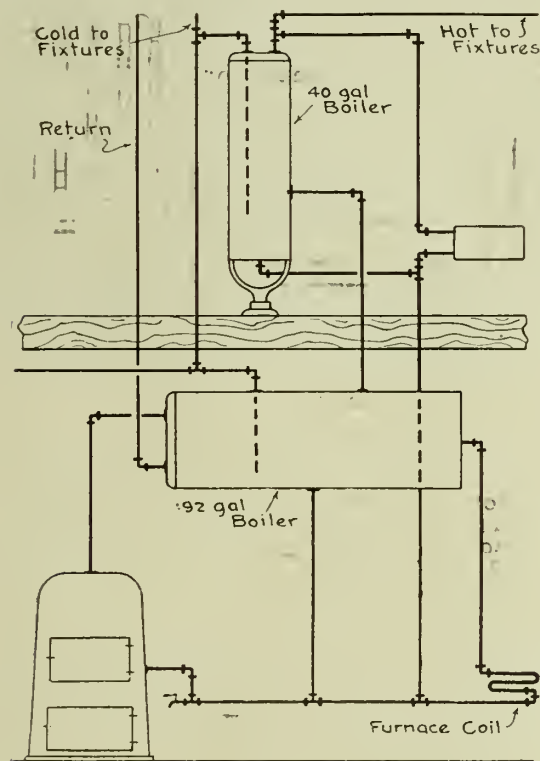


Fig. 1.

best arrangement of the different connections for these boilers.

Baltimore, Md.

S. E. D.

Fig. 1 shows the connections that "S. E. D." refers to.

The problem consists of the connection of two boilers located on different floors, and heated by two sources of heat.

The connections which he submits seem to us to be good. We would prefer to see the larger boiler the final storage point rather than the smaller boiler, but under

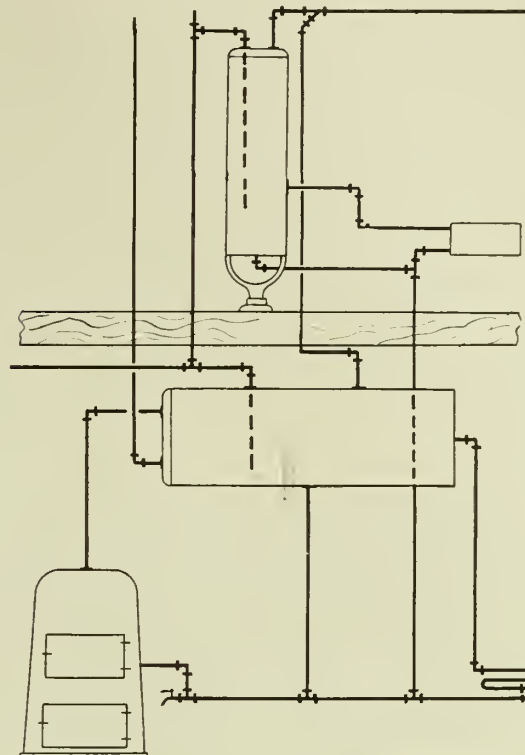


Fig. 2.

the circumstances this cannot be arranged satisfactorily.

The idea of connecting the two returns together is an excellent one, as both boilers will then be working evenly under the same conditions.

In Fig. 2 we show another method that might be followed, although we do not know that it would be any better than that of Fig. 1.

#### WATER WORKS WILL REQUIRE MUCH PLUMBING AT NEVADA, MO.

The Fort Scott and Nevada Water, Light, Heat and Power Co., of Nevada, Mo., are planning to immediately extend the water mains in that city to serve a thousand or more new consumers. This will double their business.

Aggressive work in that city can be done with a great many consumers who fail to appreciate the opportunities offered by the water mains, and the water company states that there is room for one or two more good plumbing firms in that city, made possible by the increase in business. The plumbers have an opportunity now to do some active sales work and should reap a decided harvest from the increased business possible there.

Asbury Park, N. J.—Waters Bros., Inc., is the name of a concern just incorporated with a capital of \$50,000 to engage in a general heating business. The incorporators are: E. Waters, C. A. Waters and E. Waters.

Los Angeles, Cal.—The City Plumbing Co., of Long Beach, Cal., has been incorporated with a capital of \$25,000. The incorporators are: Anton Cheroske, J. L. Cheroske and A. B. Cheroske.



# LEGAL DECISIONS

## Duty of Landlord to Reconstruct Heating Plant.

An apartment lease provided: "The landlord agrees that, without additional charge, proper heating and hot water appliances shall be maintained in this building of a size sufficient to supply a proper amount of heat and water to all tenants at all proper times, and in case of the heating apparatus requiring repair or improvement, the landlord may omit such service until all necessary repairs have been made or completed, without in any manner or respect affecting or modifying the obligations or covenants of the tenant, and in such case the landlord shall use due expedition and diligence to repair, improve, or reconstruct the same." The First Appellate Term of the Supreme Court of New York holds, in *Ollwerter against Escher*, 137 New York Supplement, 881, that it was the duty of the landlord to maintain proper heating and hot water appliances. The only conclusion that could properly be drawn from the evidence was that the steam-heating apparatus or plant was utterly inadequate, notwithstanding constant efforts at repair, to supply the heat which the landlord had covenanted to furnish. The apparatus being, according to the evidence, inadequate, though subjected to constant repair, to the furnishing of the quantity of heat which the landlord agreed to furnish, it was his duty to reconstruct the same or introduce a new steam-heating plant. He could not avoid the obligation assumed by him under the lease by proving that the apparatus was worthless and that he made ineffectual efforts to render it fit for the service.

## Title to Radiators Lost.

One Curtice entered into a contract with a Kansas City firm engaged in the business of selling and installing heating plants, to install one for him at Independence, Mo. The firm carried a stock of material in their own store at Kansas City, which they drew on in carrying out the contract with Curtice, but they ordered sixteen radiators from a manufacturing company. The company's sale to the firm was unconditional and on time. They were shipped from the company's factory, in Illinois, about January 5th, to the firm at Kansas City, Mo. When they arrived at Kansas City, the tags were changed by the consignee from the firm name to that of Curtice at Independence, and were delivered to him. On January 17th, the firm filed their petition in bankruptcy, at which time the company first learned of their insolvency. There was evidence that Curtice had made some payment to said copartnership on the said contract, but the radiators were not installed in his building. The company brought suit against Curtice, but the Kansas City Court of Appeals holds, *A.-B.-C. Co. vs. Curtice*, 144 Southwestern Reporter, 152, that, under the facts, the company was not entitled to recover, because it was not entitled to the possession of the property in controversy. The sale to the firm was unconditional, and passed to them the title to the property. Because the copartnership went into bankruptcy did not affect the right of property in the radiators so far as the company was concerned. At the time the suit was begun the trustee in bankruptcy had not asserted his right to the property; but he might do so at any time, as the title to the same was in the bank-

rupt copartnership. And the fact that the company could not under the circumstances enforce a materialman's lien on the defendant's building did not give it the right of possession. Its remedy, like that of every other creditor, was to file its claim in the bankrupt court and have it allowed against the estate of the bankrupts. The company contended that it had the right to rescind the contract of sale of the materials, but the court knows of no law to that effect.

## Liability of Landlord for Plumber's Negligence.

The Supreme Judicial Court of Massachusetts says, in the case of *Joseph Buldra against Ruth Henin*, 98 North-eastern Reporter, 863, that when the plaintiff moved into the defendant's new house there were openings in the gas pipes through which the gas, when turned on at the meter, would escape into the rooms. A plumber was engaged to put caps upon these openings, and his workman negligently left one of them unclosed, in consequence of which occurred an explosion that injured the plaintiff. Under the special answer of the jury, it must be taken as established that the order to the plumber came from Doctor Henin, whose general agency for the defendant was admitted, and the jury were warranted in finding, by the testimony of the plumber, that the order to do the work was given by Doctor Henin personally. The trial court, at the defendant's request, fully instructed the jury upon the limited duties owed by a landlord to a tenant under the law, and confined the defendant's liability to a negligent performance of work which she had promised and undertaken to do. Although the contract of letting imposed upon Mrs. Henin no obligation to put the premises into tenantable condition, or to make repairs, and she was at liberty to repudiate a promise to do so, nevertheless when she did undertake to carry out a promise to put caps upon the openings in the gas piping, even though there was no consideration for her promise, she became liable to the plaintiff for a failure to perform the work with reasonable skill and care. The issue of the plaintiff's due care was for the jury, and the court cannot say that their finding in his favor was not warranted by the evidence. There was testimony that the plumber notified the plaintiff's daughter that he had put caps on the pipes and that she had so informed her father previous to the accident. There was no evidence of the odor of escaping gas, or of any other fact calculated to warn the plaintiff that the plumber had not done his work properly. Wherefore, exceptions to a verdict for the plaintiff were overruled.

Greenfield, Ia.—A. W. Secore has opened a plumbing establishment in the building formerly occupied by A. B. Porterfield.

Atoka, Okla.—E. G. Hower has purchased the business of the Atoka Plumbing Co. and will continue the business at the same location.

Rochester, N. Y.—Fehrenbach & Cody have engaged in the plumbing business here with quarters at 260 Child Street. They would be glad to receive catalogues and other trade literature from manufacturers and jobbers of plumbing and heating goods.

# Michigan Convention at Saginaw Last Week

Twenty-first Annual Meeting One of Much Profit. Master Steam and Hot-Water Fitters' Association Organized at the Same Time

**T**HE Michigan Master Plumbers held their twenty-first annual convention at the Auditorium, Saginaw, Mich., March 18th and 19th. The greeting that was extended them and the accommodations provided for them by their entertaining brothers were all that could be desired. The weather also proved perfect for the occasion.

Many of the attending delegates arrived Monday evening, March 17, among which number were a carload from Detroit and another from Grand Rapids. Nearly all delegates were on hand at the opening of the first session Tuesday morning.

## Tuesday Morning Session.

President Geo. McCullom of Muskegon called the first meeting to order at ten o'clock. Upon the platform with him were seated James O'Neil, vice-president, of Kalamazoo;

**Press:** C. P. Tietze, Detroit; M. J. Kelley, Bay City.  
**Reading Clerk:** Otto A. Wurm, Detroit.

All resolutions were referred to the resolution committee for its opinion before being put before the house.

The first resolution to come before the house was that the Michigan State Association of Master Plumbers affiliate with the National Federation of Retail Merchants and contribute one hundred dollars at once to the support of this organization. There was considerable debate upon this resolution and Mr. Decker gave a comprehensive talk, explaining what the Federation was, what it had accomplished, what its aims were, and in what way its purposes related to the interests of the plumbing industry. Upon a motion of Mr. Decker the resolution was laid upon the table, to be voted upon the following day.

The next resolution, placing the association on record



Michigan Master Plumbers at Saginaw Meeting.

zoo; Wm. A. Decker, national state vice-president and state secretary, Grand Rapids; E. E. Scott, Saginaw, and Mr. Cimmerer, president of the Saginaw Board of Trade.

Mr. Scott introduced Mr. Cimmerer, who welcomed the master plumbers to the city. His remarks were brief, original and very much to the point. He closed by saying that he would not offer them the key to the city, for Saginaw had no key. It was always open to strangers and guests.

Next the president appointed W. K. T. Wright of Saginaw as sergeant-at-arms and Jos. B. Lang, Grand Rapids, his assistant. He then appointed the following committees:

**Credentials:** N. B. Wheeler, Kalamazoo; R. J. Mercer, Traverse City; Samuel Graham, Detroit.

**Auditing:** Geo. Van Landegend, Holland; E. W. Krueger, Muskegon; L. J. Holser, Pontiac.

**Resolutions:** Ed. Harrigan, Detroit; W. J. Pulte, Grand Rapids; E. V. Merrill, Saginaw.

as opposed to the "Oldfield" Bill (H. R. 23417), now on the calendar of the House of Representatives of Congress, because it restrains manufacturers from regulating the retail prices of their goods, was passed.

The next resolution, that in opposition to Senate Bill No. 344 as introduced at Lansing, providing for an amendment to the law relating to the garnishment of wages, because said Bill was no improvement upon the law at present on the statute books, was passed.

A resolution to oppose the practice of substituting goods where a certain make has been specified in the contract with the plumber was passed.

The meeting was then adjourned till 2:00 p. m. and the members gathered at the side of the Auditorium to have a group picture taken.

## Tuesday Afternoon Session.

At the opening of the afternoon session the president introduced Chas. G. Jewett of Howell, who proceeded to



properly label and illuminate the assistant sergeant-at-arms, J. B. Lang. A star that nearly covered his chest was hung upon him; a wonderful creation in millinery was perched upon his dome and he was handed an immense vicious-looking club with which to fell at a blow persons who dared disregard orders or failed to show proper respect for the office that he filled and the uniform he wore.

The secretary's report was then read and accepted.



Retiring President George McCullom, Muskegon.

This report showed a balance of \$584.24 in the treasury.

A resolution to endorse an honest advertising law as outlined in a recent issue of "Printer's Ink" was passed.

A resolution to prohibit entertainment features of any kind during business hours of a state or national association was introduced.

The president announced that at the close of the afternoon session a meeting of the master plumbers who were interested in the organization of a state association of master steam and hot-water fitters would be held, and which was covered in "Domestic Engineering" last week.

The list of the charter members appears on page 382 of this issue.

The report of the Credentials Committee was then read and accepted. The following is the list of names on the register:

Ann Arbor—S. C. Andres.

Bay City—M. J. Kelly, O. C. Mann, R. T. Flinn, F. Reviere, W. J. Wanlers, T. E. Smith, C. R. Nichols, J. F. Miller.

Gassopolis—M. L. Brown.

Detroit—Charles Braun, Samuel Graham, E. M. Harrigan, A. Hassig, William Hughes, E. H. Leonard, H. J. May, Peter F. McEuen, Benj. Oakes, J. W. Partlan, F. C. Sherwood, C. P. Tietze, Ernest Wentzel, Otto A. Wurm, William Gourlay, jr., John J. Voris, Frank Mohr, Herman Burnaska, James Bolton, Norman Boosey, W. G. Merbach, F. A. Porth, John Pfromm, Jas. E. Lee, Ernest Venn.

Flint—T. J. Henderson, sr., T. J. Henderson, jr., Lester L. Hall, George H. Holmes, Messrs. Hunter and Ross of Finn, Hunter & Ross, George N. Larkins, Jas. A. Miller.

Grand Rapids—W. J. Pulte, president; William A. Decker, secretary; Andrew Muir, R. E. Heth, C. G. Kuennen, J. J. Vandermeer, Wm. F. McGurrian, L. H. Butter, John Boss, William Praetorius. Alternates—Frank Youngs, Steve Swart, Harry Thompson, Martin Proos, Stanley Merdzinski, Benj. Powers, Joseph Lang, P. N. Hammer.

Grand Rapids members attending in addition to the delegates and alternates—George Thompson, jr., R. Peters of Richards Plumbing & Heating Co., Cornelius Van Rossum, Harry Birt, Charles Quain, John Hunneman, L. H. Semeyn, Frank Runnels, William Metzger, Henry Struths, T. J. Hunter, Elmer Norman, Otto Bettin, Jos. Van Rossum, H. Bouma.

Holland—George Van Landegend.

Howell—Charles G. Jewett.



Chas. G. Jewett, Howell, Toastmaster at Banquet.



C. P. Tietze, Detroit, Chairman Press Committee.

Jackson—H. B. Reed of W. J. Dowsett Co., L. A. Nowlin.

Kalamazoo—James O'Neil, N. B. Wheeler, W. P. Rix, James Harkins, Peter De Young, James Wall, Peter Schurr, Henry Strobbe, Fred Hottop.

Lansing—Edward Mack, Bert Krauss, Albert Renker.

Muskegon—James Coyne, Alfred A. Simpson, George McCullom, E. W. Krueger, William Cayo.

Pontiac—L. J. Holser.

Saginaw—J. Ahern, George Willard, Chas. Cannon, E. E. Scott, J. H. Johnson, George Gartner, H. L. Taub, C. J. Martin, C. L. Bigelow, W. K. T. Wright, A. J. Leyerer, E. V. Merrill, W. A. Brown, W. C. Richter, M. Kaiser, Fred Rachuth, F. Curott, George Schrems.

Traverse City—R. C. Mercer.



Group of Kalamazoo Plumbers, President J. J. O'Neil at Right.



Some of the Grand Rapids "Bunch," Who Came in a Special Car.

The convention then adjourned until Wednesday at 10 a. m.

### Wednesday Morning Session.

The report of the state delegate to the national convention in Salt Lake City, S. H. Morgan, of Detroit, was read and passed upon and a vote of thanks extended to him.

Mr. Tietze was next called to the front and presented by Mr. Jewett with an elegant new pipe that his brother members had bought for him. Mr. Tietze said that this was the second one he had received, and that he thought he had better lose his suit case next time.

A resolution that past presidents of the state association be elected as national vice-presidents of the national association was passed.

A resolution was passed that a letter of condolence be sent to the widow and family of the late Geo. W. Thompson of Grand Rapids.

The members then went into executive session.

### Election of Officers at Afternoon Session.

The first thing in order at the last meeting was the election of officers.

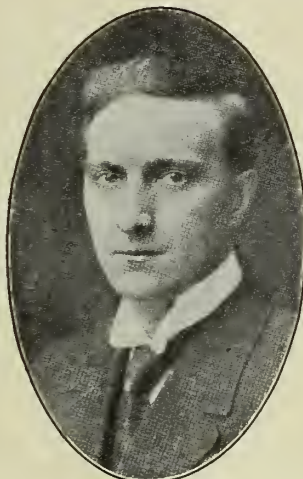
J. J. O'Neil of Kalamazoo, who served last year as vice-president, was nominated for president and elected by unanimous vote.

C. R. Nichols of Bay City was nominated vice-president and elected by unanimous vote.

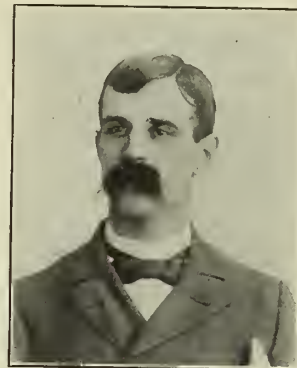
W. A. Decker, secretary, is serving a three-year term, so no election was necessary for that office.



Vice-President C. R. Nichols, of  
Corey-Nichols Co., Bay City.



S. H. Morgan, Detroit, Promi-  
nent at Convention.



E. E. Scott, Saginaw, Who As-  
sisted in Entertaining the  
Visitors.

The resolution to affiliate with the National Federation of Retail Merchants and contribute \$100 to the support of that organization was again taken up and passed.

The resolution to urge the National Association of Master Plumbers to seriously consider affiliation with the National Federation of Retail Merchants was also passed.

A letter was read from Harry Gale Nye of Chicago in which he expressed regret that he was unable to accept the invitation to attend the banquet. Mr. Nye also told a clever story that, so far as is known, has never been used in connection with his advertising.

The Auditing Committee reported having gone over the reports and found them correct. This report was accepted.

It was voted that President O'Neil and Secretary Decker be delegates to the national convention at Philadelphia.

W. A. Decker of Grand Rapids was elected State vice-president to the national association.

Geo. McCullom and C. P. Tietze were appointed members of the executive committee.

The invitation of the Grand Rapids delegates to hold the next convention there was accepted.

Mr. Jewett next announced that sleuths who had been engaged by the members present had at last, after many thrilling adventures and a running battle, overpowered and locked up the culprits who had stolen Mr. Tietze's pipe, and that the property had been recovered. He called Mr. Tietze to claim it. Now Mr. Tietze be-



Toastmaster Chas.  
G. Jewett, How-  
ell.



Gen. Wm. F. McGurrian,  
Grand Rapids.



Chas. Connor, W. K. T. Wright and E. V.  
Merrill, all of Saginaw.



R. J. Mercer, the "Delega-  
tion" from Traverse City.



believes that it pays to advertise, and says that at the next convention he will make it a point to lose his hat, overcoat and grip as well.

A vote of thanks was extended to the local members for their entertainment, and to the trade press for their courtesies.

The convention adjourned then, about 3:30, as many members wished to return home on early evening or late afternoon trains.

### The Banquet.

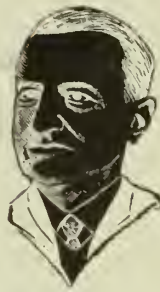
Instructions had been given out in the afternoon not to eat before the banquet, which was slated for eight o'clock, so at that hour all members and guests were lined up in front of the dining room of the Vincent Hotel with their tongues out. They filed into the dining



Secretary W. A. Decker of Grand Rapids.



N. B. Wheeler, Kalamazoo, Chairman Credentials Committee.



Geo. McCullom, Muskegon, President Master Steamfitters.



Otto Wurm, Detroit, Sec.-treas. Master Steamfitters.

room about one hundred and fifty strong, where they were served with a ten course dinner, from soup to cigars, with no trimmings left out. Good music was furnished, meanwhile, by the Metz Orchestra.

Following the meal, Mr. McCullom introduced John Ahern of Saginaw as master of ceremonies, and Mr. Ahern introduced the toastmaster, Charles G. Jewett of Howell, Mich. The toastmaster proposed a one-minute silent toast to James Meath, first president of the State Association. He then called upon the following, who responded with short, spirited talks: R. Lempke, inspector of plumbing, Saginaw; Dr. Ryan of Saginaw Board of Health; B. J. O'Donnell, Syracuse, N. Y.; Mr. Finn, plumbing inspector of Bay City; Mr. Tracey, secretary Saginaw Board of Trade; Gen. McGurkin, Grand Rapids; Jas. W. Partlan, Detroit; W. A. Decker, Grand Rapids; Geo. Landegend, Holland; E. M. Harrigan, Detroit; George Holmes, Flint; R. J. Mercer, Traverse City; George McCullom, Muskegon; L. H. Butler, Grand Rapids; and C. P. Tietze, Detroit.

Between speeches, music and other entertainment was

furnished by a local male quartette, which got off some clever stunts.

Shortly after one o'clock curfew was rung and all went to their beds.

### CHARTER MEMBERS OF MASTER STEAM AND HOT-WATER FITTERS ASSOCIATION OF MICHIGAN.

As stated in these columns last week, the organization of a State Association of Master Steam and Hot-Water Fitters was effected at the meeting of the Michigan Master Plumbers' Association at Saginaw, on March 19.

The officers elected were: president, Geo. McCullom, Muskegon; vice-president, Chas. Leicht, Saginaw; secretary and treasurer, Otto Wurm, Detroit.

The charter members are as follows:

Muskegon—George McCullom, J. J. Howden Co.; James Coyne, Hunter and Morton, E. W. Krueger, Alfred Simpson.

Detroit—Harrigan & Reed Co., James W. Partlan, Christian P. Tietze, James R. Bolton, Ernest Wentzel.

Saginaw—E. E. Scott, Charles J. Martin, Charles W. Leicht, C. L. Biglow, C. H. Cannon.

Grand Rapids—Sproul & McGurkin, Richards Plumbing Co.

Bay City—Bay City Plumbing & Heating Co., Corey & Nichols, Mann & Askerman, Ideal Plumbing Co., T. E. Smith.

Ann Arbor—Samuel C. Andres.

Kalamazoo—Wheeler, Blaney Co., Fred J. Hotop.

Wilmington, N. C.—J. R. Kenley, president of the Union Station Co., has plans made to install a heating system at Union Station. The plans contemplate the installation of larger boiler and six-inch mains with four-inch supply pipes, the work to cost about \$10,000.



L. J. Hoiser, Pontiac, second from left and E. E. Scott, Saginaw, third from left, in front of Latter's Store.

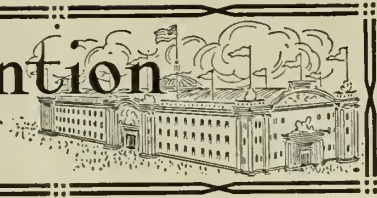


Past Pres. Geo. McCullom, Muskegon, Jas. R. Bolton and Otto Wurm of Detroit.



Pres. J. J. O'Neill, Kalamazoo at Right and Vice-pres. C. R. Nichols, Bay City, at Left.

# Convention Dates



April 9, 1913.—Annual convention of the Massachusetts State Association of Master Plumbers, at Boston, Mass. The convention will be held at the Hayward assembly rooms. The officers of the association are: James S. Cassidy, Cambridge, president; Robert Robertson, Beverly, vice-president; John J. Vogel, Boston, secretary; O. S. Kendall, Worcester, treasurer; Richard J. Welch, Lowell, chairman executive board.

April 14 and 15, 1913.—First annual meeting of the National Pipe and Supplies Association, at the Hotel Sherman, Chicago. The general secretary of the association is George D. McIlvaine, of Pittsburgh, Pa.

April 14, 15, 1913.—Annual convention of the Kentucky State Association of Master Plumbers, at Covington, Ky. The officers of the association are: J. J. Fitzgerald, Lexington, Ky., president; George Schardein, Louisville, Ky., vice-president; W. W. White, 606 York Street, Newport, Ky., secretary-treasurer; Geo. E. Morlidge, Newport, Ky., national state vice-president.

April 15 and 16, 1913.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa. The officers of the association are: President, Chas. K. Will, Lancaster; vice-president, George W. Palmer, Lemoyne; D. F. Durkin, Jr., Philadelphia; Robert Purse, Johnstown; treasurer, John H. Birchall, Allentown; secretary, G. F. Reichmann, 241 West King street, Lancaster, Pa.

## BOSTON MASTER PLUMBERS HOLD BALL.

Members of the Master Plumbers' Association, of Boston and vicinity, with their ladies, gathered at Paul Revere Hall, in Mechanics building, Boston, on Tuesday evening, March 25, for the thirtieth annual ball of the organization. The attendance was large, nearly one hundred couples being on the floor, and it is needless to say that a thoroughly good time was enjoyed, for who ever heard of a plumbers' gathering which did not result in a good time.

Extensive arrangements made by the committee in charge to make this the finest affair in the history of the association, were successful. Although a terrific electric storm, accompanied by a downpour of rain, swept the city at the hour the guests began to arrive, the attendance was not diminished in the slightest. Automobiles, taxicabs and hacks were pressed into service to bring the members and their friends to the hall.

The company gathered soon after eight o'clock, and when the strains of the first waltz were sounded by Strachan's Orchestra of this city, the hall was rapidly approaching a crowded condition. The dancing started at 9 o'clock and continued until 1 o'clock, with an intermission shortly before midnight, at which time a banquet was served in an adjoining hall by Henry J. Seiler, caterer.

D. G. Finnerty, an ex-president of the national association, was greeted by members of the committee in charge when he arrived shortly before the dancing began. Mr. Finnerty had as guests, Miss Bessie Cusick, of Nahant, and Miss Mary L. Finnerty.

Orren C. Poole was in charge of the floor and he was ably

assisted by John W. Zerringer and Walter P. Jones and the following aides: John J. Vogel, F. F. Muldowney, E. W. Cox, L. P. Bresnahan, A. E. Touchet, R. F. Brown, Frank McCarron, James Gillespie, J. P. Riley, W. J. Nason, A. E. Roberts, A. Meltzer, Frank Connor, P. A. Lang and Charles Tucker.

The special guests of the evening included James S. Cassidy, president of the state association, and John J. Vogel, state secretary.

The members of the committee of arrangements were: Orren C. Poole, J. J. Vogel, A. F. Curtin, Frank B. Connor, James S. Cassidy, P. A. Lang, J. W. Zerringer, L. P. Bresnahan and L. W. Stevens, secretary. The reception committee members were: N. J. Kelly, D. G. Finnerty, E. C. Kelly, Daniel Shannon, C. H. Cronin, T. J. Tute, A. F. Curtin, David Craig and J. C. Kelly.

Among those present were: Messrs. and Mesdames: John W. Zerringer, O. C. Poole, Walter P. Jones, John J. Vogel, P. A. Lang, L. P. Bresnahan, L. W. Stevens, D. G. Finnerty, D. T. Harrington, E. L. Smith, M. J. Kelly, F. F. Muldowney, P. J. Sullivan, A. A. Thompson, F. B. Crane, M. A. Caldwell, A. F. Curtin, G. W. Watson, W. F. Arkinson, D. A. Nolan, C. J. Murphy. Misses Mary L. Finnerty and Bessie Cusick and Messrs. E. B. Badger, jr., and Charles Lannigan.

## ROBEL HAS THRILLING EXPERIENCE.

"Domestic Engineering" Representative Narrowly Escapes Death in Omaha Tornado.

J. H. Robel, representative of "Domestic Engineering" and well known to the trade over much of the country, especially in the middle west, was in Omaha on last Easter Sunday at the time of the tornado, which destroyed buildings and snuffed out lives in that city. His experience was so hair-raising that in a letter received from him on the letterhead of the Omaha General Hospital, he states that he will probably not be able to go on the road for some little time.



J. H. Robel.

He was within fifty feet of the edge of the storm, having taken refuge in the basement of a building, which was but little damaged.

The tornado wholly or partially destroyed not less than eight plumbing shops, but fortunately none of the master plumbers lost their lives. The shop and show-

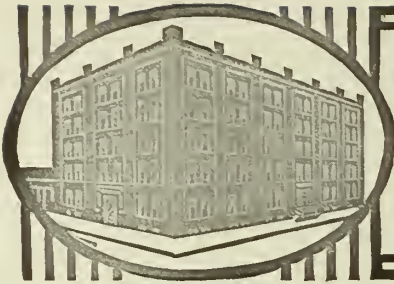
room of T. C. Rich, 2517 North 24th Street, was almost completely destroyed and the loss will run well into the thousands.

The Dundee Plumbing Co., also suffered from the storm, which did considerable damage to their building.

Conditions in the city are distressing and order has not yet been gotten out of chaos.

While this will mean quite a little additional business for the Omaha plumbers on account of the number of buildings that were destroyed or partially wrecked, the loss falls on many of the master plumbers individually, where their buildings or homes were in the path of the twister.





## News of Interest Among the Wholesalers and Manufacturers



### WILL DEAL IN PLUMBING SPECIALTIES.

O. K. Plumbers Specialty Co., Inc., is the title of a concern recently incorporated in New York City, with a capital of \$10,000, to deal in plumbing specialties. The incorporators are: George M. Wilment, Charles Lynn and George F. D. Doyle.

### FIRE CAUSES NO INTERRUPTION IN BUSINESS.

The buildings of the D. L. Hamill Co., jobbers of plumbing and heating supplies at 60-62 Delaware Avenue, Buffalo, N. Y., were visited by a small fire on Tuesday, March 18th. Little damage was done, and the fire caused no interruption in the company's business.

### SELLING AGENTS FOR THE PRESSED METAL RADIATOR CO.

The Richardson & Boynton Co., of New York City, has been appointed eastern selling agents for the Pressed Metal Radiator Co., of Pittsburgh, Pa. Its territory will include western Massachusetts and all states along the coast south to the Carolinas.

### WILL DEAL IN PLUMBING AND HEATING SPECIALTIES.

Steward & Marston Co., of Skowhegan, Maine, have been incorporated with a capital of \$25,000 to deal in plumbing and heating specialties. The officers of the company are: B. T. Steward, president; C. R. Marston, treasurer.

### PIERCE, BUTLER & PIERCE MFG. CO. PURCHASES CONTROLLING INTEREST IN THE KELLOGG-MACKAY CO.

The Pierce, Butler & Pierce Mfg. Co., of Syracuse, N. Y., has purchased the controlling interest in the Kellogg-Mackay Co., of Chicago, Ill., the latter company, for the past fifteen years, having been the western representatives for the sale of the boilers of the Pierce, Butler & Pierce Mfg. Co. The officers of the new company are: Wm. K. Pierce, president; C. V. Kellogg, first vice-president; W. F. Woodruff, second vice-president; P. M. Beecher, secretary; E. W. Payne, assistant secretary; F. W. Fix, treasurer; H. B. Detlor, assistant treasurer. This acquisition by the Pierce, Butler & Pierce Mfg. Co., while in no way affecting the established policy of the business, will assist the new company materially in advancing its interests throughout the west on a most conservative basis. The Pierce, Butler & Pierce Mfg. Co. will continue to manufacture the boilers sold by the Kellogg-Mackay Co. as heretofore, and plans are under contemplation for improving the conditions of the new company.

### FLOODS IN INDIANA AND OHIO DO UNTOLD DAMAGE.

#### Many Manufacturers and Jobbers of Plumbing and Heating Supplies Affected.

The awful catastrophe of the past week, that has brought death and destruction to thousands in Indiana and Ohio, by both flood and fire, has paralyzed industry in the stricken districts.

The plumbing and heating business has suffered with the rest and many of the trade are in dire distress.

Ohio and Indiana contain a great many manufactories of plumbing and heating goods, many of which are temporarily crippled by the action of the elements.

Dayton, the worst devastated city of the flood-swept region, is the home of a number of well-known manufacturers of goods used by the plumbing and heating trades. Prominent among these are the American Bolt & Screw Case Co., the D. L. Bates & Bro. Co., Buckeye Iron & Brass Works, Dayton Pump & Mfg. Co., Philip Haas Co., Lucas Pump Co., McCormick Mfg. Co., McDermont & Mory, National Steam Heater Co., Pasteur-Chamberland Filter Co., the Geo. J. Roberts Co., Swift Furnace Co. and the Vaile-Kimes Co. In addition to these the Dayton Supply Co., jobbers of plumbing and steam fitters' supplies, is also located there.

Columbus, another city in the path of the storm, is the home of the Buckeye Pump & Mfg. Co., Burgess Soldering Furnace Co., Columbus Brass Works, D. A. Ebinger Sanitary Mfg. Co., the Ohio Pump & Brass Co., Ruby Chemical Co. and W. W. Strickler & Bros. Jobbers in that city are the Ascher Supply Co., the Columbus Brass Co., Columbus Supply Co., Potts-Rive Supply Co., Scioto Valley Supply Co. and the Westwater Supply Co.

Serious damage and death have resulted at Delaware, O., Peru, Ind., and many of the smaller cities throughout that district.

It is impossible to get definite news of the extent of the disaster as it affects the plumbing and heating trades. Without doubt it is far-reaching and facts concerning the fate of those in the midst of it are eagerly awaited.

Relief measures have been undertaken through many sources, the work being directed by the American Red Cross.

### WILL MANUFACTURE PLUMBING SPECIALTIES.

The Sans-Keller Bath Co., of Alexandria, Ind., has been incorporated with a capital of \$50,000, to manufacture plumbing specialties. The incorporators are: William Baker, A. H. Woodward and A. Noble.

The Rockway Plumbing & Supply Co., of Huntington, W. Va., has been incorporated with a capital of \$25,000. The incorporators are: F. W. Rockway, Harry Clark and Gaylord Stewart.

## MANUFACTURERS' DISPLAYS AT NATIONAL CONVENTION.

**Exhibition Room Has Been Provided in Bellevue-Stratford Hotel, Philadelphia, for Use at Convention, June 17, 18 and 19.**

Our correspondent, in an interview with Harry B. Lentz of Philadelphia, the energetic chairman of the Exhibition Committee, was assured that ample provisions have been made, and that everything possible is being done to make the manufacturers' and jobbers' exhibition of plumbing material one of the most attractive features of the coming National Convention.

The rooms laid out for exhibition purposes are located on the first floor of the Bellevue-Stratford Hotel, Philadelphia's leading and exclusive hostelry, located at Broad and Walnut Streets, within two blocks of the City Hall, Pennsylvania Railroad Station, Wanamakers' Store, etc., within four blocks of the Reading Terminal, and at a

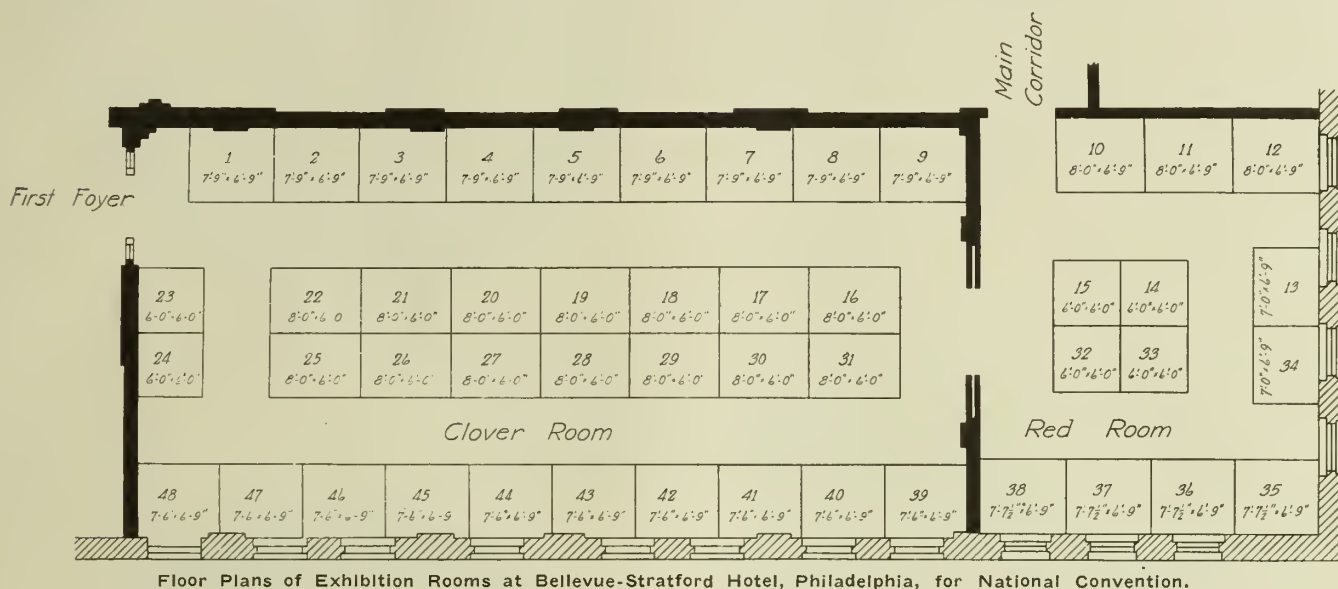
ours, is assured. Three to four thousand master plumbers, the most influential men in the trade, are expected to attend the convention from every part of United States and manufacturers should make haste to arrange for holding desirable locations, as everything possible is being done to make the exhibition a success.

Inquiries about and applications for space, are coming in rapidly and the committee advises making arrangements early.

The Exhibition Committee is composed of Harry B. Lentz, Chairman, 634 Girard Ave., Gregor Drummond, Harry K. Bisbing, R. H. Pflug-Felder and Martin J. Morgan.

## TEXAS ASSOCIATION ARRANGES FOR EXHIBITS.

The San Antonio local association has made arrangements with the Menger Hotel, which will be headquarters during the state convention April 24, 25 and 26, for a large room for the use of exhibitors. By this move



Floor Plans of Exhibition Rooms at Bellevue-Stratford Hotel, Philadelphia, for National Convention.

point from which every part of Philadelphia can be reached with convenience and dispatch.

The Clover Room and Red Room adjoining the ball room in which will be held the National Convention, located on the first floor, easy of access and advantageously placed, are set aside for exhibition purposes.

The committee has issued a floor plan of both rooms and the reproduction of blue-print issued by the exhibition committee, shows detailed outlines of the exhibition spaces. Copies of blue-print and floor plan will be mailed to any manufacturer interested in placing his product before the visitors of the National Convention, if request is made to the Exhibition Committee, addressed Harry B. Lentz, 634 Girard Ave., Philadelphia, Pa.

The Exhibition spaces are neatly laid out, aisles are spacious, rooms are well lighted and as it is the intention of the committee to have the exhibition rooms open to the public, from 8 to 10 the exhibitors will have the added advantage of placing their product before the wealthy and influential patrons of this palatial hostelry and to other visitors. As this year's convention will be held in Philadelphia, the birthplace of our republic, it will prove a "Mecca" to the master plumber. An extraordinarily large attendance, from every part of this wide land of

manufacturers and others wishing to make exhibits will be provided with a reasonable amount of space free of charge. Wm. G. Schuwirth, president of the local association, can be communicated with in regard to the exhibit arrangements. He states that disposition of the articles exhibited can probably be arranged for at the close of the convention. His address is 231 West Commerce Street, San Antonio, Texas.

## THIRD NATIONAL DRAINAGE CONGRESS AT ST. LOUIS.

Mrs. Edwin D. Hornbrook, of Kansas City, Mo., wife of Past National President E. D. Hornbrook, has been appointed the delegate from that city to the Third National Drainage Congress, which is to be held at the Planters Hotel, at St. Louis, April 10, 11 and 12.

The object of the meeting is to urge Congress to take immediate action to create a National Drainage Commission that will have supervision of the protection of health, life and property by proper drainage of streams, swamps and overflowed lands in the United States.

The meeting should be of especially timely interest owing to the awful flood conditions just now confronting the people of the Middle West.





R. A. Tate, for many years connected with Chas. Millar & Son Co., of Utica, N. Y., has succeeded L. H. Birdseye as manager of the plumbing supply department of the Hart & Crouse Co., of Utica, N. Y.

Joseph L. Fritz, who acts as agent for several manufacturers of plumbing goods, has moved his office to 910 Drexel Bldg., Philadelphia.

G. W. Patterson, of the G. W. Patterson Co., Greensboro, N. C., manufacturers of "All Right" closet seats, has just completed a visit to his company's branch offices in Boston, New York City and Philadelphia.

George A. Muir has severed his connection as heating engineer in the offices of D. H. Burnham & Co., of Chicago, to accept a similar position with the Monash-Younger Co., of Chicago.

J. F. Brady has resigned his position as chief clerk in the office of Plumbing Inspector A. R. McGonegal, at Washington, D. C., to accept a position as representative of the Washington branch office of the J. L. Mott Iron Works. Mr. Brady will continue to act as secretary for the Association of Plumbing Inspectors of the District of Columbia.

#### A NEW SOLDERING TOOL.

What is said to be a very convenient tool for plumbers' use is the new soldering device which has recently been brought out by the Globe Gas Light Co., 25-27 Union Street, Boston, Mass. This torch is made in two sizes, the "Neuachat" and the "Piccolo," which are illustrated



The "Neuachat" Gasoline Soldering Iron.

herewith. The "Neuachat" soldering tool is made for gasoline only, and will burn one and a half hours without refilling. It is claimed that it will not blow out. Hatchet or pointed coppers can be used interchangeably. Removal of copper leaves a complete torch which will burn in



The "Piccolo" Automatic Benzine Soldering Iron.

any position. The "Piccolo" burns benzine and is ready for use in two or three minutes. This apparatus admits a continuous working of about forty minutes. After detaching the copper-bit it can also be used as a blow lamp. The manufacturers state that there is no danger of explosion whatever when using this soldering iron. Full particulars regarding this device will be cheerfully furnished upon request to the Globe Gas Light Co., mentioning "Domestic Engineering."

#### THE BEATON & CADWELL MFG. CO'S. SPECIALTIES.

It is our pleasure to present herewith a likeness of A. J. Beaton, of New Britain, Conn., framed within one of the floor plates, in the manufacture of which he is a pioneer. Mr. Beaton is the president of the Beaton & Cadwell Mfg. Co., of that city, whose line, in addition



A. J. Beaton, President of the Beaton & Cadwell Mfg. Co.

to floor and ceiling plates, embraces a number of other specialties.

The lower illustration gives a view of the plant of the Beaton & Cadwell Mfg. Co., of New Britain, Conn., where these goods are made. Wm. H. Cadwell, who has



The Plant of the Beaton & Cadwell Mfg. Co., at New Britain, Conn.

been the secretary and treasurer for a number of years, is also well known to the trade.

Mr. Beaton states that his company has recently placed on the market their No. 10 plate, made of cold rolled steel, in sizes ranging from  $\frac{3}{8}$  in. to 4 in. inclusive, of which an immense stock is carried for prompt delivery.

Another new production is their steel pipe roll, made in sizes 1, 1¼ and 1½ inch. Samples of this roll will be sent on request.

The catalog, describing the above specialties, as well as their line of hangers, radiator, foot rails, etc., will be cheerfully mailed on request upon mention of "Domestic Engineering."

#### "DAD" PIPE HANGER IN DEMAND.

D. A. Donovan, of Auburn, N. Y., who manufactures the "Dad" pipe hanger, reports an increasing volume of business for this device. He has recently started several salesmen on the road who will call on the trade as far west as Kansas City. The pipe hanger is a unique device



The "Dad" Pipe Hanger and Its Trade Mark.

and where it is known has met with favor. The trademark of the little boy is familiar to readers of "Domestic Engineering."

#### ISSUES CATALOGUE OF PLUMBERS' SUPPLIES.

One of the new trade catalogues that has just reached us is that of the Ireland & Matthews Mfg. Co., Detroit, Mich., the front cover of which is reproduced herewith.



Front Cover Design of the Ireland & Matthews Mfg. Co's. New Catalogue.

The booklet is nicely gotten up in two colors on a good grade of enameled paper. A splendid view of the company's plant is shown on the outside back cover. A complete line of plumbers' supplies manufactured by this company is displayed and described in a comprehensive

manner, including bath, basin and closet supplies and connections, traps, wastes and overflows, etc. Interested parties can secure this catalogue by dropping a card to the above named company, mentioning "Domestic Engineering."

#### SUPPLEMENTS TO UNION SANITARY CO'S. CATALOG.

The Union Sanitary Mfg. Co., of Noblesville, Ind., has just issued an attractive supplement to its catalog of



Plate A-316, Showing Left Corner Bath.

enameled ware. The new designs include an attractive line of built-in enamel baths, Plate A-316 shown herewith illustrating a left corner bath of this type.



Plate A-312, Showing Recess Bath.

Plate A-312 shows one of their porcelain iron recess baths with enameled iron front plate, for tiling in wall and floor.

The attractiveness of this type of bath has already become evident through the appreciation of the better class



of buyers, who are becoming more and more particular about the style as well as the quality of the fixtures they install.

The manufacturers will be pleased to supply those interested with the supplements as well as their regular catalog, which will be sent upon mention of "Domestic Engineering."

#### A BOOKLET WITH THE PUNCH.

It was our pleasure the other evening to look over a booklet that is away out of the ordinary. Its title at once appeals to the plumber's profit-making instincts, and gets the attention at the start of the story that holds his interest through to the end.



The title is "How to Increase Your Profits by Selling High Grade Goods," and the signature at the bottom The Central Brass Manufacturing Co., of Cleveland, is the guarantor of the excellence of the booklet itself, as it is of their well known line of Quick-pressure brass goods.

"Does it pay to sell high-grade goods?" is the first question asked in the book. Chapter one is devoted to answering this question, and the answers are not exactly what you would expect. They are couched in language that has the appeal of a novel—you've got to read it to the end, there's such a human interest to the whole. And when you've finished that chapter you're a convert to the idea that nothing else but high-grade goods will ever again be offered by you.

Then when you get over to chapter two and get next to some of the ideas of salesmanship that it brings out, you have become convinced, in spite of any apathy that you have had at the start, that the biggest and best opportunities for the plumber-salesman are just ahead.

The suggestions of figuring costs and overhead, as outlined in chapter three, are practical and business-like and will inspire any plumber to better his methods.

"Advertising," the title of chapter four, is such a vital force in any business that its treatment in this connection is especially to the point. The fact that the policy of the Central Brass Manufacturing Co. has been to co-operate in an advertising way with the dealers handling their goods, is brought out at the close.

Those who have not seen a copy of this booklet should write the Central Brass Manufacturing Co., Cleveland, and ask for a copy, mentioning "Domestic Engineering."

#### ATTRACTIVE FOLDER OF G. W. PATTERSON CO.

"Genius is the Capacity for Taking Infinite Pains" is the title of a new ten-page folder recently gotten out by the G. W. Patterson Co., Greensboro, N. C., manufacturers of "Allright" closet seats. The folder shows in an attractive way illustrations of four styles of seats, and includes a comprehensive explanation of the advantages of the goods of this firm's manufacture. This folder is part of a vigorous campaign of advertising be-

ing conducted by this company and which they say is producing a most satisfactory number of orders. The trade should make it a point to write to the G. W. Patterson Co. for a copy of "Genius," mentioning "Domestic Engineering" when writing.



#### EXCELLENT DEMAND IN FINISHED LINES.

A marked contrast exists between the demand for finished steel and the pig iron market. In the former there is much more activity than during the corresponding week in January and February and shipments are unusually heavy. A noticeable feature has been the demand by the implement manufacturers for concessions in the price of bars. Steel makers have held firm and refused all concessions, except to some favored consumers, the shading amounting to \$1 per ton. Few, however, have been able to secure this and perhaps all the contracts that could be made at 1.40 cents Pittsburgh have already been consummated. In pig iron weakness continues, and in the Central West there is quite a little available for early delivery. Pig iron manufacturers, however, are holding firm for later months and considering the price of coke, ore and labor, the existing quotations on pig iron seem to be fairly conservative and it seems unlikely that any marked concessions will be made from these figures. Quotations per ton are as follows:

No. 2 plain, Northern Foundry, New York	\$17.25 to \$17.50
No. 2X Northern Foundry, New York.....	17.50 to 17.75
No. 2 Southern Foundry, Birmingham.....	13.00 to 13.50
No. 2 Northern Foundry, Chicago.....	17.25 to 17.50
No. 2 Northern Foundry, Cincinnati.....	16.25 to 16.75

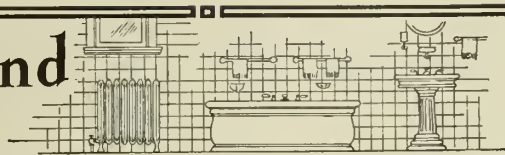
#### TIN.

The market is more or less irregular. Some large jobbers in New York have a good deal of tin coming for August delivery at much higher prices, and so much tin for this delivery has been sold around 48 cents that no one wishes to stock up and make contracts to even up their purchases no matter how attractive present quotations may seem. In other words, consumers here have apparently over-bought. This does not apply, however, to the leading consumer of the country, the United States Steel Corporation, which will continue to be a large buyer on the scale down should the opportunity offer. Tin is now available at 46 cents.

#### COPPER MARKET BARELY STEADY.

Consumers of copper are buying from hand to mouth, but the American consumption seems to be very fair. In Europe there is not very much business transacted, but late advices from Germany are to the effect that the crisis there will be passed on April 1 and from that time on an improvement may be expected. It must be remembered that stocks of copper in Europe are at a low point. Electrolytic is now selling at 15 cents.

# Among the Plumbing and Heating Contractors



## California

San Francisco.—Judging by recent announcements from local architects, the amount of local building work is due to increase rapidly from now on. A few large general construction contracts have been let during the week, and contracts for plumbing, as well as orders for finishing materials for old jobs, are coming out in much better shape than last month. The largest building on which contracts have been let this week is the education building of the Panama-Pacific Exposition, the general construction of which will cost nearly \$300,000. The lowest bid for the plumbing work was that of the Turner Co., \$14,779. At the time that bids were opened, with the approval of all contractors present, the Exposition directors made a ruling that hereafter a deposit of \$100 will be required of all prospective bidders, to be refunded when the plans are returned. Fourteen hundred men are now employed on the Harbor View site, and by next August it is stated that 7,000 will be employed, but in view of the number of workmen who are now rushing in on the prospect of work it is pretty certain that this number can be secured without difficulty. The contractors are making rapid progress with the machinery building, and foundations are being laid for the palace of liberal arts and automobile hall.

Aside from the Exposition work, it is believed that contracts will soon be let for the Civic Center work, as plans are nearly complete for the new city hall. Plans for the municipal auditorium have been approved, and should be ready for figures within a few months, and the preliminary arrangements have been made for the building of the municipal opera house, also on the Civic Center. Aside from this, plans will soon be ready for a large building at Mission and New Montgomery streets, and for a large 4-story structure, known as the Engineers' Building, for Chas. C. Moore & Co., at First and Mission streets. Eastern parties have purchased a large block at Fourth and Market streets, intending to build a 9-story building, for which plans are said to be about ready. The sub-contracts on the U. S. Subtreasury building are expected at any time.

Buying on the part of wholesale supply dealers is said to be a little more active in some lines, but slow in others, stocks being extremely heavy in some classes of supplies. This is especially true of steel pipe and enameled fixtures. Pipe has not been moving as well as was expected in the local trade, and with mills offering early delivery little new buying is likely before June or July. Several agents for brass goods, however, report a very lively demand, especially in the outside towns.

The arrival of the cargoes of the ships Windber, Erskine M. Phelps, and Manga Reva with plumbing fixtures has given the local firms enough bathtubs and other enameled fixtures to last for some time. The Manga Reva, the third large cargo to leave Philadelphia, reached port a few days ago, and is now discharging at Pier 36, the wharf being now piled high with goods, which are being

moved as fast as possible to the local supply warehouses.

The Master Plumbers' Association has had prominent representation in the Contractors' & Dealers' Association of California, which recently held its second annual convention in this city. The local master plumbers' hall, 110 Page Street, being an ideal place for such a gathering, the convention was held there. After three days spent in discussing problems of the contracting business, the meeting closed with a dinner at a downtown cafe, at which Frank J. Klimm, past president of the master plumbers, acted as toastmaster. The following officers were elected: president, J. E. Steers; vice-presidents, W. D. Scoville, R. J. Hughes, Chris Totten; secretary, W. S. Scott; treasurer, W. S. Hanbridge.

Fred Mueller, of the H. Mueller Mfg. Co., Decatur, Ill., was in the city late last week, but was able to make only a short visit to the new office.

Francis J. Baker, of the Geo. H. Tay Co., is expected back from his eastern trip about the end of the month.

A. S. Lamond, manager for the Wolverine Brass Works, reports an extremely satisfactory business all over his territory, especially in the country districts of California. James Meese has recently been sent on the road to represent the San Francisco branch in Oregon, southern Idaho and Utah.

The Pacific Fire Extinguisher Co. has taken the contract for heating work in a large building at Turk and Fillmore Streets.

Bids will be opened Apr. 7 for laying a pipe line and installing oil burning apparatus in buildings at the military post of Fort Rosecrans, Cal.

E. Ehret, a plumber, of Berkeley, Cal., has taken a contract to erect a 5,000-gal. tank at the Berkeley high school, with feed and discharge pipes, for the water supply from the new municipal well.

The largest plumbing contract reported in some time at Los Angeles is that for the Trinity Auditorium, being erected by the Los Angeles Investment Co., at Ninth street and Grand avenue. The job was taken by Howe Bros., at \$32,263.

Bids have just been taken for a heating system in two new buildings for the Orange, Cal., Union high school.

O. H. Siebel, formerly located in Oroville, Cal., has opened a first class plumbing shop in Woodland, Cal.

Frank A. Hunt has purchased the interest of his partner, H. Hartman, in the Peerless Plumbing Shop at Madera, Cal.

The City Plumbing Co. has been incorporated at Long Beach, Cal., with a capital stock of \$25,000, by C. Cheriske, jr., I. L. and A. B. Cheriske.

The trustees of the Santa Ana, Cal., high school have decided on steam heat for their new buildings, and have placed the contract with the Machinery & Electric Co., of Los Angeles, at \$12,483.

Thomas Alton has taken a contract for a steam heating system in the third floor of St. Matthew's hospital at San Mateo, Cal., for \$2,396.

E. M. Payne has taken the heating contract for the new Masonic building at San Luis Obispo, Cal., the plumbing contract going to the Union Hardware Co.



# Washington

Seattle.—Plumbing Inspector James McIntyre reports the following business changes among plumbing and heating concerns since the first of January: S. L. Langkam, has opened a plumbing and heating establishment at 355 N. 73rd Street.

Ingwersen & Borgford, 3035 W. 71st Street, have opened a shop at address named, and are now ready to do all kinds of plumbing, heating and gas fitting work.

The firm of Matthews & Randall, plumbing and heating contractors, 1006—7th Avenue, has been dissolved, and R. L. Randall is continuing the business on Post Street, near Madison Street.

W. H. Sewell has taken M. Douglas into partnership, and the newly organized company is established at 921 Pine Street, as Sewell & Douglas.

Hammond & Session, heating contractors, 230 Madison Street, have succeeded the Modern Plumbing Co. at same address.

The Bungalow Plumbing Co. has moved from 624 Post Street to a location between 3rd and 4th Avenues on Cherry Street.

The Lavan Plumbing & Heating Co., formerly at 2000 Western Avenue has consolidated with the Seattle Sheet Metal Co., and is now located at 503 Railroad Avenue. The new company will be known as the Western Engineering Co., and is prepared to handle plumbing, heating, gas-fitting, sheet metal work, etc.

The U. S. Plumbing Co. has succeeded McDonigal & Suzuki, at 304 Maynard Bldg.

A. B. Thompson has opened a plumbing and heating shop at 2318 N. 56th street.

J. E. Davis & Son, 1716 Yesler Way have moved to a location in the same block.

Ester & Johnson, 6720 9th Ave., N. W., have been succeeded by F. W. Johnson. Shop is located at address named.

Central Plumbing Co., 107 Seneca Street, has been changed to James Johnson, who has taken over the business.

Thies & Fresch has been changed to the Northwest Plumbing Co., and is now located at 2246 15th Avenue West.

E. H. McMahon, 1509 8th Avenue, has taken over the business of the McMahon & Kain Plumbing & Heating Co., 1506 8th Avenue.

Following contracts for plumbing have been awarded recently: Clancy & Williamson, 216 Madison Street, have been awarded the contract for installing plumbing and heating systems at 1412-16 Broadway for J. W. Hughes, also plumbing fixtures at 925 3rd Avenue, for Sullivan & Considine.

W. K. Hendrickson, 6006 Hillman Place, has been awarded the contract for installing drains, plumbing fixtures, etc., at 103 4th Avenue for the Prefontaine Building Co.

Sullivan Bros., 518 Olive Street, have been awarded the contract for installing plumbing fixtures in a building at 118 4th Avenue S.

E. I. Stebbins Co. has been awarded the following residence contracts for plumbing and heating: J. Johnson, 357 W. 75th Street, and 355 W. 77th Street; L. D. Williams, 2023 24th Avenue S.

Ernst Hardware & Plumbing Co., 514 Pike Street, has been awarded the contracts for plumbing in the follow-

ing residences: N. B. Beck, 5314 24th Avenue N. E. F. Schultz, 2819 Alaska Street; Arvia Olson, 2446 East Valley Street, G. F. Clark, 1858 N. 52nd Street; J. S. Brown, 4234 Williams Street, C. J. Swanson, 7318 10th Avenue.

The Woodlawn Plumbing & Heating Co., 7111 Woodlawn Avenue, has the contracts for installing plumbing in two residences as follows: J. L. Wilbur, 6223 W. Green Lake Boulevard; T. A. Cooper, 325 E. 77th Street.

Independent Plumbing & Heating Co., 2404 1st Avenue, was recently awarded the contract for installing plumbing in a building located at 1006 1st Avenue, for Frederick & Nelson's department store, 2nd Avenue and Madison Street. This Company also has the plumbing contract in a residence owned by C. L. Dyer, 118 E. 59th Street and for W. R. Hutchinson, 4212 39th Avenue S. W.

Hugh McKenzie, 4906 Rainier Avenue, has been awarded plumbing contracts in the following residences: C. H. Green, 4459 Hudson Street; H. Nelson, 3952 Orcas Street; C. H. Nelson, 5223 39th Avenue S.

A. C. Urch, 2606 W. 58th Street, has the following contracts for residence plumbing: Wm. McFee, 5108 Ballard Avenue; Arthur Ahrens, 4728 38th Avenue.

Standard Plumbing Co., 3521 Fremont Avenue, will install plumbing in the residence owned by Alina Ekanger, 509 N. 74th Street. This Company also has the contract for plumbing the residence of Emil Beck, 218 West Crockett Street.

Greenwood Plumbing Co., Greenwood Avenue, will install plumbing for C. J. Perrett, 8420 Greenwood Avenue.

Shafer & Co., 504 Northlake Avenue, has the following contracts for residence plumbing: F. M. Barnes, 2325 Delmar Drive, E. F. Pinkle, 515 Union Street.

A. McDaniel, 4307 14th N. E., will install plumbing in the residence of G. L. Skeel, 5762 27th Avenue N.

Northwest Plumbing Co. will install plumbing in the residence of Gus Johnson, 1716 W. 60th Street.

Leonard Deatheredge, 2120 California Avenue, has the contract for plumbing residence of G. L. Collins, 4103 W. Bradford Street.

A. J. Gagnon, 7417 Sunnyside Avenue, has the contract for plumbing in residences of H. A. Medley, 518 East 78th Street, and also N. A. Medley, 607 Banner Place.

W. B. Mullin, 3615 Phinney Avenue, has been awarded contract for plumbing in residence of P. Bremeyer, 4919 Interlake Avenue.

Geo. A. Schott, 307 N. 83rd Street, has been awarded the following contracts for residence plumbing: R. Chambers, 743 No. 73rd Street; R. Chambers, 742½ N. 72nd Street; P. Minca, 548 N. 82nd Street.

S. L. Langkam, 353 N. 73rd Street, has the contract for plumbing in the residence of Mary Hossman, 139 N. 79th Street.

J. C. Kelly, 201 2nd Avenue S. has contract for plumbing residence of Chas. Bright, 1422 11th Avenue W.

Rustad Plumbing & Heating Co., 315 2nd Avenue S., have the contract for plumbing for W. H. Mand, 1908 1st Avenue.

C. F. Doyle, 1303 Arcade Way, has been awarded contract for plumbing and heating in the building owned by A. Hambach, 307 1st Avenue S.

Architect W. P. White, Walker Bldg. is receiving bids for plumbing for the 5-story, 100x100 ft. reinforced concrete apartment house to be built on S. E. corner of 16th Avenue and Madison Street.

Seattle.—Business among Seattle plumbers has been very quiet during the past few weeks, one of the largest contracts recorded being that let to the Rautman Plumb-

ing & Heating Co., 617 4th Avenue. This job is for changing plumbing and heating lines in the Arcade block for Rhodes Brothers.

The Ernst Hardware & Plumbing Co., 514 Pike Street, has been awarded the contract for installing plumbing fixtures at 619 3rd Avenue for the Amos Brown estate.

A Schaefer & Co., 2007 First Avenue, will install plumbing fixtures in a residence at 6314 19th Avenue, N. E., for Herbert Smith.

R. Johnson Co., 4418 Woodland Park, will install plumbing fixtures at the following addresses: 6745 3rd Avenue N. W. for the O'Reilly Co., and 1757 West Spokane Avenue for W. Mailler.

The Bungalow Plumbing & Heating Co., Cherry Street, will install plumbing fixtures at 817 68th Street for A. W. Sherman, also at 3251 Ferdinand Street for S. C. Whittington.

J. C. Kelly, 201 2nd Avenue S., has the contract for placing plumbing fixtures in the Northern Hotel, 111 First Avenue S.

McMahon & Kain, 1506 8th Avenue, have been awarded the contract for installing plumbing fixtures at 1924 First Avenue for Sarah A. Waterman.

The Independent Plumbing & Heating Co., 2404 First Avenue, will place plumbing fixtures at 1117 First Avenue, for the Starr Estate, Inc., also at 4811 42nd Avenue S. W., for Q. C. Thompson.

Ward & Scherer, 111 Pine Street, were recently awarded the plumbing contract for a residence by Leroy L. James, 528 21st avenue. Forty-eight plumbing and heating fixtures will be installed.

The Rustad Hardware & Plumbing Co., 315 2nd avenue S., recently received contracts for installing plumbing fixtures at addresses named: 324 2nd avenue S., for W. B. Gaffney; 535 1st avenue S., for Stetson & Post; 110 1st Avenue S., for T. S. Lippy.

A. C. Urch, 2606 W. 58th Street, will install plumbing fixtures at 2552 14th Avenue W., for F. C. Dean.

Collman & McGuire, 6862 E. Greenlake Boulevard, have the contract for plumbing fixtures at 2124 N. 63rd Street and at 2122 N. 63rd Street. A. Johnson, owner.

F. W. Johnson, 6720 9th Avenue N. W., has the plumbing contract in a residence at 7040 21st Avenue N. W., owned by A. S. Sumarlidson.

G. A. Schott, N. 83rd Street, will install plumbing fixtures in a residence at 1819 N. 55th Street, for Edward Von Tobel.

A new application has been made in Spokane, Wash., for a franchise to install a central steam heating system in a part of the business district.

The park commissioners of Spokane, Wash., have made appropriations for the construction of lavatories and a bubbling drinking fountain at the children's playground on the interstate fair grounds. An appropriation was also made for temporary lavatories at the stadium site.

## Oregon

Portland.—Bids for installing the heating in the new jail here ranged from that of \$17,340, by Alaska Plumbing Co., to \$20,455 by Schneider & Co. For the plumbing for jail, the lowest bid was \$8,700, submitted by Wackrow & Woodhouse. For heating of fire station, bids ran from \$105 to \$650; for the plumbing thereof, \$600 to \$1,450.

The contract for heating and ventilating work in the

new city jail at Portland, Ore., has been let to W. W. Cox, on a bid of \$17,725. Wackrow & Woodhouse, with a bid of \$9,300, would have taken the plumbing contract, but withdrew the bid, and new figures will be taken.

### ENERGETIC TACOMA PLUMBERS.

The firm of Appling & Griggs, of Tacoma, Wash., is one of the enterprising ones in that growing state. Mr. Griggs is President of the Washington State Association of Master Plumbers. He is shown at the right of the picture and Mr. Appling at the left. This firm has just completed a heating job in the Griggs Land Company



Plumbing Establishment of Appling & Griggs, Tacoma, Wash.

Building, Wenatchee, Washington, and are furnishing the Eastern Oregon Hospital for Insane at Pendleton, Oregon, the plumbing contract being approximately \$30,000.00. They are now doing both the plumbing and heating in the Raymond School at Raymond, Washington, the total contract being \$10,400.00.

## Minnesota

St. Paul.—E. J. Donohue, architect, in the Gilfillan block, is taking bids on plumbing and heating for the St. James Parochial school, West Seventh street; a new high school at Millerville, Minn.; a new high school at Little Falls, Minn.; and a thirty-two flat building for Mrs. Berres to be built in this city.

Ellerbe and Rounds, Endicott building, have plans out for figures on a 4 flat building to be built for M. E. Jorgeson.

St. John's Episcopal church is taking figures on plumbing and heating for a new parish house and gymnasium to be built adjacent to the church on Portland avenue, F. H. Brooks, Washington D. C. is the Architect.

E. L. Garlough, Rosen Building has completed plans for a twelve flat buliding for Mr. Hines, to be built on the West Side. The plumbing and heating contracts have not been let.

Baird and Sudheimer, 106 Iglehart street, were the successful bidders on the plumbing and gas fitting in a new residence for D. D. Crowley, Seventh and Smith avenues. George McGeery, 163 W. Third street was awarded the heating contract.

The Healy Plumbing & Heating Co., 278 W. Third street, was awarded additional plumbing and heating



work at Glacier Park, Mont., for the Great Northern Railway Co.

Chas. A. Webber, 236 W. Fifth street, was awarded the plumbing and gas fitting in a four-flat building to be built on Rice street and Sherburne avenue.

O. W. Barrett, 203 Sherburne avenue, is installing the plumbing in a new residence for Mr. A. Schultz at 863 Stryker avenue.

S. J. Davis, 155 W. Third street, is doing the plumbing in the New Country club and also in Mr. Shood's new residence.

J. D. Hyland, 198 W. Third street, is installing the plumbing for Gust Luck, 291 Carroll street, and remodeling some of the plumbing in the Armory building at Sixth and Franklin streets.

Minneapolis.—The past week has been a cold one which has put a end on building operations, but a break is looked for soon and this will bring forth the spring building in abundance.

A. W. Scott & Co. 215 6th Street S., was awarded the plumbing contract in the warehouse for Janney, Semple, Hill Co., at 1st Avenue S. and 1st Street.

E. A. Colliton, 124 E. Lake Street, secured the plumbing contract in the new residence for Andrew Sather, 3517 20th Avenue S.

Worthingham & Co., 322 3d Avenue S., were the successful bidders on the remodeling of the plumbing in the state asylum at St. Peter, Minn., for the consideration of \$6,963.37. The work is to be started the middle of March.

The Central Plumbing & Heating Co., 1903 E. Lake Street, was awarded the plumbing in the following new residences: Chas. R. Weldon, 4017 Chicago Avenue; Geo. Gorgensen, 2319 E. 36th Street; Henry Brekle, 1214 E. 28th Street.

## Illinois

Chicago.—The Illinois state legislature will soon be presented with a bill for an act to revise the law providing for the licensing of plumbers in this state. The Illinois Master Plumbers' Association and master plumbers throughout the state have aided in the drafting of the bill. The proposed amendment to the law is intended to abolish the various boards of examiners which at present exist in cities and towns of 10,000 population or more, and only have hereafter an examining board in towns and cities of 150,000 inhabitants or more. The bill also creates a state board of examiners of plumbers to consist of three members, one of which shall be a member of the State Board of Health and who shall be ex-officio of said board of examiners; a second member who shall be a master plumber and who shall have been actively engaged in the plumbing business in the state for at least ten years and have an established place of business at the time of his appointment; and a third member, who shall be a journeyman plumber and who shall have had at least ten years' practical experience at the plumbing trade. They shall be appointed by the governor of the state within three months after the passage of this act for a term of four years. This will practically mean that that there will be only two examining boards, one for the City of Chicago, which will, as heretofore, be appointed by the mayor, and one for the balance of the state, which will be appointed by the governor. There is no intention to change the fee for a

master plumber's certificate, which heretofore has been \$50, and for a journeyman plumber's certificate, which has been \$1. A provision, however, is made for a fee of \$5 to be payable to the state board, to entitle a plumber to an examination, this fee being intended to defray the cost of the examination.

Since the stern hand of the law has put a quietus on auto-bandits a new type of riding burglar has made his appearance in Chicago. It's the wagon-bandit that has bobbed up of late to grace the place left vacant by Bandit Webb and his ilk. Master plumbers have been the victims of the express-wagon bandits during the past few weeks. Some time ago the entire brass goods for eight flats and four stores were stolen from a building at the corner of 12th Street and Turner Avenue, the plumbing of which is being installed by J. J. Dunbar & Co. On March 5th all of the brass goods for an eight-flat building at Washington Boulevard and California Avenue for which G. Albin Nilson has the contract was stolen. In neither case have the thieves been apprehended. The Master Plumbers' Association warns its members not to purchase plumbing supplies from anyone except those legitimately engaged in the supply business. The local association will appoint a committee to confer with the Chief of Police with a view to obtaining some protection from these depredations.

Two young "express-wagon bandits" who were carting away plumbing material from a building on West Madison Street were recently arrested through the efforts of B. E. Lynam, vice-president of the Chicago Master Plumbers' Association. The latter caught the young men red-handed at their work of depredation. He has the contract for the plumbing installation on the building and had been missing materials. After giving them a severe thrashing he had them arrested and placed in jail. The culprits are charged with grand larceny and an effort will be made to hold them to the grand jury. Through its attorney, the Master Plumbers' Association intends to prosecute this case vigorously and make an example of them.

A special committee representing the Chicago Master Plumbers' Association left for Springfield Tuesday evening, March 25th. The following day they called on Governor Dunne to advocate the appointment of a master plumber on the State Board of Health. Governor Dunne received the committee with warm cordiality at the executive offices. He assured the delegation that he would give the suggestion offered his serious attention, and make his attitude known as soon as possible. The members of the committee were P. M. Murphy, C. J. Herbert, C. J. Boyd, D. J. Hickey, C. F. Taffe, and C. C. Breyer.

David Whiteford has secured the contract for the installation of plumbing on the new building of the Garden City Foundry Company which is being constructed at 31st Street and Archer Avenue at an estimated cost of \$30,000. Mr. Whitford has also recently begun the work of equipping the Budlong Pickle Company's factory with new plumbing. The first plant is located at Sheffield and North Avenues.

John Y. Dunlops, a well known plumbing and sanitary expert of Glasgow, Scotland, has recently written Thomas J. Claffy, president of the American Society of Plumbing Inspectors and Sanitary Engineers, that he will be unable to address them at the convention of the society at Louisville this coming May. He adds, however, that he will be delighted to accept Mr. Claffy's invitation to speak next year.

# Ohio

Cincinnati.—Orders have been given to the general contractors on the Good Samaritan hospital to proceed with the work at once. This job has been idle for several months, owing to a lack of funds. The Richard Murphy Plumbing Co. has the contract for the sanitary installation.

Frank Niesen & Co., 1208 Sycamore Street, closed contracts to install the plumbing in residence being erected for A. W. Roos on Lincoln Avenue near May Street; also for alterations being made at 1413 Vine Street for the Ben Schneider estate.

Architect Andrew James, Bell building, was given the commission to draw plans and specifications for a store and apartment building to cost \$25,000 for the East End Bank Co., at 4011-17 Eastern Avenue. This improvement is to contain two stores and four apartments.

The Reistenberg Plumbing Co. was awarded plumbing contracts on three buildings being erected by J. A. Oberhelman at 9510 Oakland Avenue, Price Hill, at a cost of \$5,000 each. This company will also do the plumbing in a \$6,000 residence being erected by Theodore Kemps.

William H. Meller, formerly with William J. Gibson, has opened a plumbing establishment of his own at 411 Plum street. Mr. Meller has many friends in the city who wish him success.

W. R. Lindeman, Pleasant Ridge, will install the plumbing in residence being built on Ridge Avenue for G. W. Oliver.

Frank Moeller, one of our efficient plumbing examiners, spent several days in Washington, D. C., taking in the inauguration ceremonies. Mr. Moeller was introduced to President Wilson by our Congressman Allen.

The Richard Murphy plumbing Co. 328 E. 4th Avenue, will install plumbing in a duplex building at 2615 Ashland Avenue, for Dr. J. B. Cassello.

Newcomb & Jenkins will erect a beautiful residence in the Rose Hill subdivision for F. A. Amann as designed by architect C. M. Foster. The plumbing which will be a first class installation has not as yet been awarded.

A. R. Eickhoff, who formerly was located at 1614 Sycamore Street, has moved his plumbing business to more commodious quarters at 1610 Main Street.

J. J. Vogelpohl & Co., 4156 Hamilton Avenue, will install the plumbing in two residences being erected at a cost of \$10,000, for Frank Gilfillen on Donaldson Place.

E. C. Kelly, 523 Main Street, Covington, Ky., was awarded the plumbing contract for residence being erected in Silver Grove by A. B. Alexander.

Cincinnati.—R. D. Moesta, Clifton Avenue, was awarded the contract to install plumbing in flat building being erected on Clifton Avenue and Warner Street for W. F. Rogge.

Edward Felix, 653 McMicken Avenue, the well-known plumber, finds time now and then to build houses for the market. Last year he built a number of houses and disposed of them at a nice profit, and encouraged by this, he is having plans drawn by Max Kau for two additional houses, which he will place on the market as soon as they are finished.

R. J. Cluxton & Co., 3946 Spring Grove Avenue, secured plumbing contract for Charles Howeler, who is erecting a building on Gray Street and Winton Road, and one for Frank Moggenberg on Seymour Avenue and Reading Road.

Jas. Goldenberg, who formerly was operating on West Sixth Street as a master plumber, is now actively engaged with the U. S. Plumbing & Heating Co. on West Court Street.

Henry Niemes, 4112 Hamilton Avenue, will do the plumbing in building being erected on Elkton Avenue, College Hill, for Frank Fitzwater.

J. Smith, 717 Broadway, is installing the plumbing in garage at 917 Race Street for Frank J. Dorger.

Toledo.—The American Warming & Ventilating Co., 707 National Union building, has secured the contract for the heating installation in the new central school to be erected at Catawba Island to take the place of the three present schools.

Dayton.—Plumbing and heating contractors of Toledo have their eyes on a fine contract which will be provided in the near future by the \$45,000 government building at Xenia, O.

Cary & Hall, Defiance, O., have secured the heating contract for the United Brethren church at Bowling Green, O., at a cost of \$5,460.

Wapakoneta.—Kalter & Craft are installing plumbing fixtures and a drinking fountain at C. H. & D. depot.

Springfield.—Bakhaus Plumbing Co. is finishing plumbing in a four-flat apartment on W. Main Street belonging to Henry Craft.

Craine Desorneaux Plumbing Co. is roughing in plumbing and heating in new K. P. Castle on High Street; also at Girl's Cottage at Masonic Home, amounting to \$6,000.

Chas. E. Ridmam Plumbing Co. is finishing plumbing in three new flats on Miller Street belonging to R. A. Washburn.

Victor Plumbing Co. is finishing plumbing and heating at the City hospital amounting to \$7,000; also remodeling the plumbing and heating of Mrs. Whitelaw Reid's residence at Cedarville, O.

Baxter & Nafz Co. will start about Apr. 1st to install plumbing and heating in new Central Methodist Church on Center Street, amounting to about \$15,000. This company will erect a new building 50 x 100 feet for their business the second and third floors to be used for flats.

W. J. Romer, Lagonda Avenue, has just completed plumbing at Emmitt Homestead, at Waverly, O.

Geo. Haucke Co. has just finished plumbing in the Springfield Gas Co.'s new office building and has contracts to install plumbing in eighteen new residences.

Urbana.—H. W. Roberts has just finished plumbing in Citizen's Nat. Bank Bldg.; also plumbing at Home Loan Co.

Geyer Grimes will start April 1st to install plumbing in two double houses on Water Street belonging to the Desmond Stevens Co.

Bellefontaine.—S. E. Whitcomb just finished a plumbing and heating job at McGuffey, O., in a residence belonging to Mr. Bartholomew.

Robert B. Davidson secured the contract for plumbing, gas fitting and steam heating in new post office at Bellefontaine, an \$80,000 building. Plumbing and heating will amount to \$6,000.

Sidney.—Sidney Hardware Co. has seventeen plumbing contracts on its books and will start work on them as soon as the weather permits.

Bush Plumbing & Heating Co. secured the contract for plumbing and wiring B. T. Bull's residence on Elm Street, now being remodeled. This company will soon start work on B. F. Evan's residence at Swanders, O., plumbing, lighting and water pressure system.



Piqua.—Stephenson & Morey have secured plumbing contracts for twenty-five houses.

M. A. McKale has secured the contract for plumbing in new high school, amounting to \$9,000.

Piqua Plumbing & Heating Co. is completing plumbing at the handle factory. April 1st the company will start to rough-in plumbing and heating in Roy Hager's residence, on Wayne Street.

Elyria.—C. C. Weaver, 250 Second street, is building a five-story 20-suite apartment on Middle avenue with steam heat, vacuum cleaning system, and modern plumbing.

C. C. Weaver is putting in heating plant and Y. A. Lucas installing plumbing in new Y. M. C. A. building here.

Oberlin.—Oberlin has secured natural gas from Pittsfield Gas Co., and plumbers are very busy. The city council has passed an ordinance condemning all outside closets.

Miles J. Watson is doing plumbing and heating work at the residence of I. W. Metcalf, amounting to \$1,500.

Norwalk.—Williams & Hay just completed hot water and plumbing job at C. A. Paul's residence, also vacuum cleaning system, amounting to \$2,200.

A grammar school is being erected here costing \$20,000. The work is supervised by Architect Redding, of Mansfield, O. Plumbing and heating contracts have not been let.

Bellevue.—W. M. Bollenbacher is finishing plumbing and heating at the F. O. E. building.

C. W. Shug has purchased the Johnston Hardware Co. and is doing an extensive plumbing and heating business.

Sandusky.—F. F. Wetzler, 809 Columbus avenue, is doing heating work in the new Third National Bank building, amounting to \$4,500.

An addition to the high school will be built costing about \$200,000. Plumbing and heating contracts not let.

Brohl & Appell, Washington Row, are doing plumbing and heating at Sycamore school amounting to \$6,500; also plumbing at Crescent Hotel at Put-in-Bay.

Huron.—F. W. Wilkes is installing a pneumatic system at J. E. Keshman's residence on Lake Shore.

The contract for the new Bellefontaine, O., federal building to be erected at a cost of \$62,375 has been awarded to J. G. Unkemer & Co., of Minerva, O. Toledo plumbers expect to bid on the plumbing and heating contracts.

Among the improvements planned for St. Augustine's Catholic church, at Napoleon, O., are included the installation of a steam heating plant. Local steamfitters expect to secure the contract.

Bowling Green.—At a meeting of the board of education recently, plans for the heating systems in the new high school building were accepted. A committee was appointed to investigate heating plans in a number of school buildings. N. R. Harrington, clerk of the board of education was authorized to re-advertise for bids on plumbing according to the new specifications to be opened April 5.

McArthur.—The Lamneck Co., of Columbus, O., has been awarded the contract for the heating system in the McArthur high school building. The same contractors secured the contract for the heating system of the German M. E. Church at Marion, O.

Morrow, O.—The Columbus Heating and Ventilating Co., of Columbus, O., was awarded the contract for the heating system at the Morrow high school.

Lima.—Bids will be received April 15 by the board of

education for a heating and ventilating system for the Lima high school building.

Cleveland.—The Walker Bros. Co., has been incorporated with a capital stock of \$5,000 to engage in the plumbing and steam fitting business. The incorporators are J. W. Walker, Thomas N. Walker and H. Walker.

## Kentucky

Louisville.—Phil F. Laib, of the Laib Company, one of the leading plumbing supply houses in Louisville, is delighted with the interest which is being taken by every civic and commercial organization in Louisville in the proposed Chamber of Commerce—an institution which involves Mr. Laib's pet idea and whose birth, when it occurs, he will largely be credited with. Mr. Laib has worked untiringly in behalf of an organization to represent the city at large. A committee of seven, composed of representatives of the leading commercial and civic bodies of the metropolis, is now at work upon plans which promise to result in the establishment of the Chamber.

Theodore Ahrens, president of the Ahrens & Ott Manufacturing Co., left recently for Pittsburg, Pa., where he spends about half his time in the routine of business.

A. J. Anderson & Company, Main Street steam-fitters, recently secured the contract for heating equipment to be installed in the new National Theater, the foundation of which is now being sunk at Fifth avenue and Walnut street in this city. The theater itself will be one of the largest in the south, seating more than 3,000 persons, and the structure housing it, containing a number of stores and offices as well, will cost more than \$250,000. A representative outfit of modern steam heating equipment, with temperature and humidity registers throughout and several hundred feet of radiation connections, is to be installed by the Anderson Co.

The remodeling of the Hotel Ventura, in Ashland, Ky., including the installation of private baths in every room and other extensive plumbing and heating equipment, is to be taken up at once under the direction of Conlin & Helfrich, of Ashland, who recently purchased the hotel from the Ashland Hotel & Realty Co.

Schwartz & Fern, of Cincinnati, O., have secured a contract for the installation of extensive plumbing equipment in the new residence of Henry W. Meyer in that city.

Articles of incorporation have been filed by the Kruse Plumbing Company, of Newport, Ky., by Albert Kruse, jr.; Edward Kruse, Mary Kruse and Theresa Kruse. The company is capitalized at \$5,000.

F. A. Clegg & Co. has been awarded the contract for the heating and ventilating apparatus in the fifteen-story Fayette National Bank building in Lexington, Ky. The contract price is about \$25,000.

M. J. Duffy & Sons, 521 W. Market Street, will install the plumbing, complete, in the new million-dollar powerhouse of the Louisville Railway Co., at Twenty-first and High streets. This structure is now in course of erection and its plumbing will involve the installation of more than forty fixtures. Another contract of importance recently secured by the Duffy interests is for considerable new installation of plumbing in St. Ann's Roman Catholic Convent, at Twenty-fifth street and Portland avenue. This firm has found the automobile which it put into commission some time ago to be so effective in solving satisfactorily the big problem of the metropolitan master plumbers nowadays that it has purchased a Studebaker light

delivery truck to work with its Brush machine. In adding this piece of equipment the house of Duffy establishes itself as the leading user of modern delivery apparatus in local plumbing circles.

## Massachusetts

Amesbury.—The installation of a new sewerage system in the town has made lots of extra work for local plumbers. Nearly all of the plumbers have several orders for connections and bathroom installation on hand.

Lowell.—Walter S. Curtis, for twenty years in the employ of H. H. Wilder Co, plumbers, has started in business for himself. He plans to do all kinds of plumbing, gas and steam fitting. He is located at 17 June street.

Marblehead.—The town has appropriated \$9,500 for the installation of a modern heating and sanitary system in the Story school.

Pittsfield.—The contract for the plumbing at the anti-tuberculosis hospital has been awarded to Edward L. Bruhn.

Fitchburg.—The Jennison Mfg. Co. has been awarded the contract for heating the new shops of the Boston & Maine railroad at North Billerica. Proposals were submitted by many of the leading heating firms of New England. Fifty miles of pipe will be required for the heating system, which will be arranged for hot water. There are 12 buildings to be heated with an air space of 15,000,000 cubic feet of air space. The total cost of the buildings will be about \$3,000,000.

Williamstown.—Fred H. Sherman is making extensive improvements in his plumbing and hardware store on Main Street. He will have better windows for the display of his stock in trade and additional office facilities.

Southbridge.—Changes in the by-laws of the town regarding plumbing work are recommended by Plumbing Inspector Albert R. Brown. Mr. Brown points out that there was a time when it was considered necessary to connect certain vent pipes which the best authorities now considered unnecessary and he believes the local laws should be brought up-to-date in this respect and in others.

Athol.—C. Leon McKellips has sold his plumbing business to Arthur E. Totman who had been in his employ for a number of years.

## Connecticut

Hartford.—A certificate of incorporation has been filed with the Secretary of State by the Connecticut Contract Plumbing Repair Co., of Stamford. The company plans to repair plumbing by contract for a stipulated sum per year and is incorporated for \$25,000. The incorporators are: Samuel Kurainsky, Benjamin Spiro and Isaac Novak.

New Hartford.—George Smith jr., of West Avon, has bought the plumbing business of Henry T. Smith, of this town. His brother James will be associated with him in the business.

Stamford.—A certificate of incorporation has been filed with the secretary of state by the Contract Plumbing Repair Co., of this city. The concern is capitalized for \$1,050.

South Norwalk.—The Heating & Plumbing Co., of

Norwalk, has been awarded the contract for plumbing and heating on a large new residence at Tokeneke for M. D. Randall.

Hartford.—Henry T. Smith, of New Hartford, who recently disposed of his plumbing business by selling out to George T. Smith, was the oldest merchant in this section. He had been in the plumbing, hardware and tinning business for 53 years. His retirement was due to advancing years and declining health.

New Britain.—New Britain has finally voted to have an inspector of plumbing. The matter has been under consideration for some time and has just been definitely decided by the city government. The appointment of an inspector is still pending.

Danbury.—Charles R. Austin who recently resigned from the employ of the firm of F. A. Hull & Son, plumbers with which he had been associated for twenty years, has formed a partnership with Charles R. Norman to conduct a plumbing business. The firm will be known as Austin & Norman and will occupy a building in the rear of the City National Bank.

Waterbury.—F. W. Engert & Son has the contract for the plumbing and heating in a three-family house being erected on Cooke Street for T. J. Brennan. George A. Upham is making alterations in John J. Sheehan's building at 130 South Main Street and the plumbing and heating contract has been let to the Barlow Bros. Co.

Bridgeport.—Louis Schine has the contract for plumbing and tinning in a store being erected on Barnum Avenue for A. L. Kaplan.

## Vermont

Montpelier.—Papers have been filed at the state house incorporating the plumbing and hardware concern of Peck Bros., of this city. The new corporation, merges the plumbing and heating business formerly conducted by Peck Bros. with the hardware business recently acquired by George Dewey.

Montpelier.—At a special meeting of the city government, it was voted to erect additions to two school houses, to cost, with their heating plants, \$71,000.

The legislature has passed an act authorizing the state board of education to draw upon the state for a sum not exceeding \$7,000 for furnishing and installing a heating system at the state normal school at Castleton.

## Maine

Bar Harbor.—The town has appropriated money for the plumbing of the new school building. The contract will be awarded later.

Presque Isle.—A. M. Smith has sold his plumbing business to the Allen Plumbing Co.

Searsport.—The town at the annual meeting appropriated \$1,700 for steam heating, ventilating and sanitary improvements at the Union school house. The contract will be awarded soon.

Port Chester, N. Y.—Hauxwell & Smith has been incorporated with a capital of \$25,000 to conduct a general plumbing and heating business. The incorporators are: R. J. Hauxwell, Edward Smith and Robert Burns, all of Port Chester.



# Classified Advertisements

Advertisements under this heading 4 cents per word per issue, address included. Remittance to be made with order. To insure insertion copy should be received not later than Wednesday morning.

**Situations Open.**

WANTED—EXPERIENCED MAN TO represent large Cleveland Jobbing House as heating salesman. Must be experienced, good habits and well recommended. State salary. Address Box 936, care of "Domestic Engineering," Chicago. 3-22-29

SALESMAN WANTED FOR TEXAS territory. Men experienced in selling Plumbing and Heating Supplies. Give reference and record in first letter. HIGGINS COMPANY, SAN ANTONIO, TEXAS. tf

WANTED—AN EXPERIENCED MECHANICAL draftsman for designing all manner of power pumps, etc. Steady employment. State age and salary expected. Address Box 938, care of "Domestic Engineering," Chicago. 3-22-29, 4-5

WANTED BY LARGE MANUFACTURING Jobber of Plumbers', Steam Fitters' and Factory Supplies, salesman to travel southern Michigan. Must have A-1 references. State where employed or formerly employed. Address Box 945, care of "Domestic Engineering," Chicago. 3/29-4/5

SALESMAN WANTED FOR CONNECTICUT Territory. Must be experienced in selling heating supplies and steam specialties. Give reference and record in first letter. Address Box 946, c/o "Domestic Engineering," Chicago. 3/29

**Situations Wanted.**

WANTED BY MECHANICAL DRAFTSMAN, graduate, 8 years' experience, two in heating and ventilating work, connection with western concern. Address P. O. Box 298, Chicago, Ill. 3-29

WANTED—AGENCY ON A POPULAR line of brass goods to the plumbing trade of New England; best of references. Address Box 942, care of "Domestic Engineering," Chicago, Ill. 3-22-29, 4-5-12

**For Sale**

FOR SALE: \$3,750 WORTH OF STOCK in a plumbing company capitalized at \$10,000. Located in a growing southern town of 20,000 people with an ideal climate. A 27-mile sanitary sewer system is about completed on which no house connections have yet been made. Have been in business for nine months and have paid a 25 per cent dividend. A splendid opportunity for a practical man. Ill-health the reason for selling. Address Box 944, c/o "Domestic Engineering," Chicago. 3/29, 4/5, 12, 19

FOR SALE—WHOLESALE PLUMBING and Heating Supply business in Chicago. Big mail order and city trade. Good reason for selling. Address Box 943, care "Domestic Engineering," Chicago. 3-22

**Miscellaneous**

SELL YOUR SURPLUS COUPLINGS and fittings. Write us. The A. & J. Mfg. Co., 557 W Lake St., Chicago. tf.

**Government Proposals.**

TREASURY DEPARTMENT, OFFICE of the Supervising Architect, Washington, D. C., March 8th, 1913. Sealed proposals will be received at this office until 3 o'clock p. m. on April 5, 1913, and then opened, for alterations in plumbing system at the United States post office and custom house, Galveston, Tex., in accordance with the specification and drawing enumerated therein, copies of which may be obtained from the custodian at Galveston, Tex., or at this office, at the discretion of the Supervising Architect. Oscar Wenderoth, Supervising Architect. 3-22, 29

**WE PUBLISH:**

PRINCIPLES AND PRACTICE OF PLUMBING. By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

SEWAGE PURIFICATION AND DISPOSAL. By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

**Address:**

**DOMESTIC ENGINEERING**  
445-447 Plymouth Court, Chicago

## What They Want and How They Can Get It

A wants a job in the manufacturing or jobbing department of the plumbing and heating business as a bookkeeper, order clerk or salesman.	B wants to hire a bookkeeper, order clerk or salesman familiar with the plumbing and heating line.
C wants a job as a plumber and steamfitter.	D wants to hire a plumber and steamfitter.
E wants the agency for a line of plumbing and heating goods.	F wants to establish an agency for his line of plumbing and heating goods.
G wants to sell out his plumbing and heating business.	H wants to buy a plumbing and heating business.
J wants a partner in the plumbing and heating business.	K wants to buy an interest in an established plumbing and heating business.
L wants to sell some second hand manufacturing machinery.	M wants to purchase some second hand manufacturing machinery.

Nothing is easier than for these men to get together and do business.

A small ad in the Classified Columns of DOMESTIC ENGINEERING will bring it about. See rates at top of page.

Kindly quote "Domestic Engineering" in writing advertisers.

# IT PAYS TO GET THE REAL ARTICLE



## VOGEL PATENT FROST-PROOF CLOSETS

are known to have no equal for strength, simplicity and ease of access to the working parts.

By simply unscrewing the one brass cap back of bowl, the movable parts can be withdrawn in an instant.

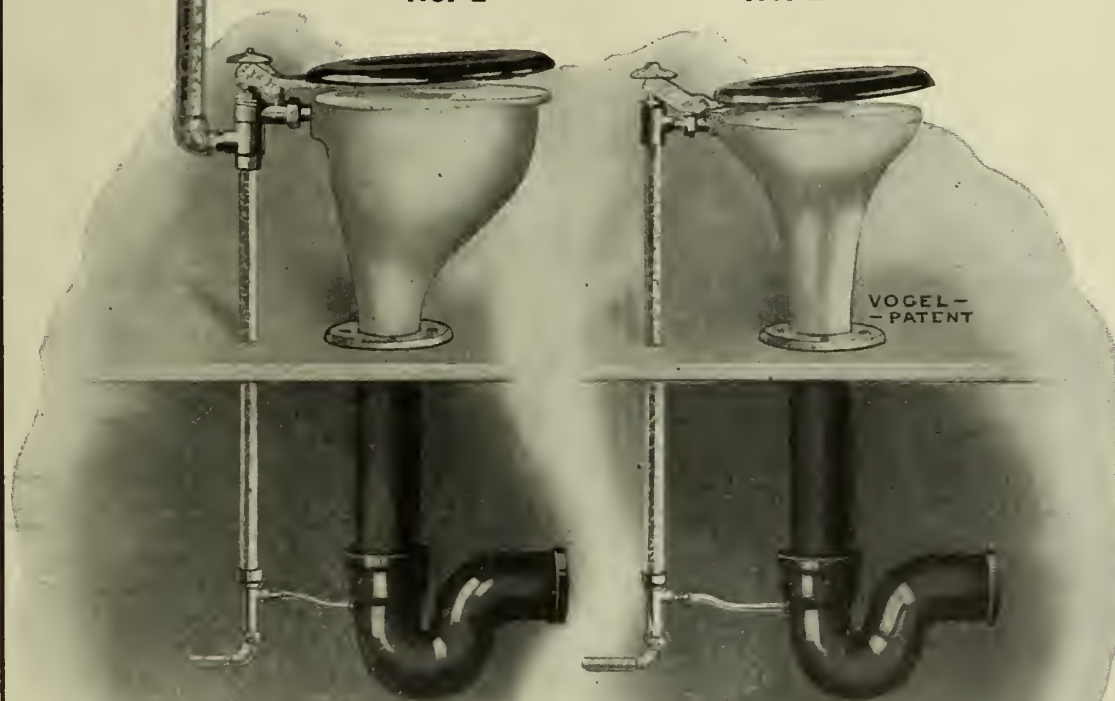
The supply valve is full weight good quality red metal, and when once covered with earth, can be depended upon to give satisfactory service for years.

Those who are using these frost-proof closets have such confidence in their correct assemblage of parts that in many cases the floor covering the supply valve is made of cement.

The entire fixtures are thoroughly tested under water pressure before leaving factory.

No. 1

No. 2

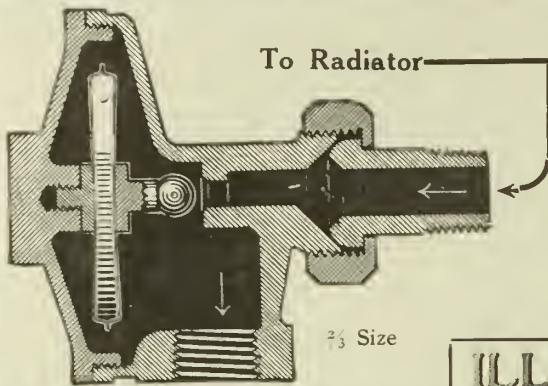


Reliable  
Jobbers  
Carry  
VOGEL  
Patent  
Frost-  
Proof  
Closets  
in  
Stock

# JOSEPH A. VOGEL CO.

WILMINGTON,  
DELAWARE





# The Perfect Valve

FOR EITHER

Vacuum or Modulating Vapor Heating Systems

## Note Exclusive Advantages:

VERTICAL SEAT, so that dirt cannot lie on seat.  
DIAPHRAGM on return side of valve seat, so that water is not held in radiator.  
VALVE closes against the steam, not in it.  
SILENT, SENSITIVE and Positive in operation.  
BALL SEATING on a cone; tightest seat known.

Some Open Territory—Write for Catalog

ILLINOIS THERMO

ILLINOIS ENGINEERING CO.  
Chicago

*Leader*

Water Systems  
Pumps, Power, Etc.  
Gasoline and Air Storage  
Outfits  
Air and Water Storage  
Tanks

*Leader Iron Works*

DECATUR, ILL.

OWEGO, N. Y.

New York City Office  
15 William St.

Chicago Office  
1631 Monadnock Bldg.

## ATTENTION! Master Plumbers, Steam Fitters, Electricians

Your workman can do better and more work when equipped with

### Smith's Folding Pipe Vise Stand

Any style or size vise can be used, and stand can be folded together and carried from one job to another.

Always ready for work and will last a lifetime

Write for booklet and price, or ask your jobber to supply you.

Strand Healer & Mfg. Co.  
1244 St. Clair Avenue, Cleveland, Ohio

## Strickler Ratchet Pipe Cutters

The best cutter ever made.

Built for service.

Cuts steel pipe or CAST iron SOIL pipe.

Every crew should have a Strickler No. 1 and No. 2 among their tools.

Write for prices and descriptions.

W. W. STRICKLER & BROS.  
Columbus, Ohio



## The Demand For The "SISSON" Insertable Joint Is Growing Rapidly

Because—it is the easiest and best method of making absolutely water-tight connections in soil pipe work.

It does away with the old way of springing the stack or removing whole lengths of pipe.

Your jobber knows—ask him, or write us for particulars.

R. Estabrook's Sons  
SOUTH BOSTON, MASS.

## BEST BY TEST

is the verdict of all those using G. Barthel's make of apparatus.

OUR

## "NEUERINIT"

gasoline torch, is by far the best quart size torch on the market and will do double the work, of any torch made. No plumber can afford to be without them. Sent on receipt of price, express paid.

Torch only \$6.00. Soldering Iron Rest 50 cents extra.

Globe Gas Light Co., 27 Union St., Boston, Mass.



## Badger Quality = Next Best + 50 Per Cent

That Badger boilers are equal to the next best plus 50 per cent is due to 72 years of copper engineering experience; the best equipped copper-smithing plant in New England, if not in this country; the careful selection of material possible only to large purchasers; workmen skilled in every branch of the art; and last but not least, the rigid inspection which insures every boiler coming to the mark set by Badger Quality.

E. B. BADGER & SONS CO.

63 Pitts St., Boston, Mass.

May we send you our catalog?

50-6





# GENUINE ARMSTRONG STOCKS & DIES



Malleable Iron  
Hinged Pipe  
Vises

Pipe Cutters

Bard Adjustable  
Bushings

Pipe Dies

Bolt Dies



Pipe Threading  
Machines

Both Hand  
or Power

No. 0 cuts Pipe  $\frac{1}{4}$  to 2"

No. 00 cuts Pipe 1 to 4"

No. 1 cuts Pipe 1 to 3"

No.  $1\frac{1}{2}$  cuts Pipe 1 to 4"

No. 3 cuts Pipe 1 to 6"

Manufactured by

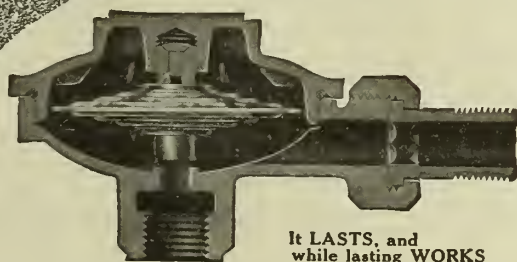
**THE ARMSTRONG MFG. CO.**

New York

284 Knowlton St., Bridgeport, Conn.

Chicago

# The DUNHAM Trap *has one moving part*



It LASTS, and  
while lasting WORKS

It positively frees the  
radiator of all water and  
air without the loss of  
steam. Does not clog up.  
Note the simplicity.

Would you like to learn more of this little trap which will positively increase your profits? Ask us for references in your section, or if you know where a Dunham System is installed, investigate it.

WRITE FOR OUR GUIDE BOOKLET. IT'S FREE.

**C. A. DUNHAM CO., Marshalltown, Iowa**

Canadian Office and Works: Toronto, Canada

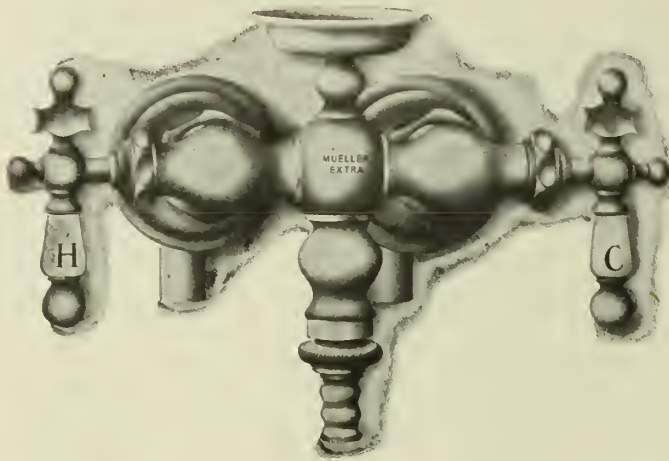
New York, Rochester, Pittsburg, Cleveland, Louisville, Indianapolis, Detroit, Chicago,  
Davenport, Milwaukee, Minneapolis, Kansas City, Denver, Ft. Worth,  
Salt Lake City, Spokane, Portland, San Francisco, Los Angeles

Kindly quote "Domestic Engineering" in writing advertisers.



# Mueller Fuller Bath Cocks

**are Built to Uphold  
a Standard**



D-10754

A standard that this factory established a number of years ago and is still living up to.

In making Mueller Fuller Work we never stop with a line "just as good" as is to be found in any other Fuller work, but you can easily notice a decided superiority. The materials, the workmanship and the finish are all to be found in a greater degree of quality. The entire construction is considered for long life and continuously perfect service.

The Mueller line consists of Fuller bibbs, basin and bath cocks, pantry cocks, etc., and all are **Unconditionally Guaranteed.**

***"There's Lasting Class in Mueller Brass"***

Works and General Offices  
**DECATUR, ILL., U.S.A.**  
West Cerro Gordo St.

**H. MUELLER MFG. CO.**

Eastern Division  
**NEW YORK, N.Y., U.S.A.**  
254 Canal St., Cor. Lafayette



THE HOME OF "SOUTHERN BEAUTY."

It has grown some within the past few years. Handle ***"Southern Beauty"*** ***Enameled Ware***, and

your business will grow. Catalog showing complete line mailed on request.

## The Cahill Iron Works Chattanooga, Tennessee

New York Office and Display Rooms:  
1161 Broadway  
Thos. H. Hutchinson, Manager

San Francisco Office & Display Rooms  
1749 Sacramento St.  
C. H. Stanyan, Sales Agent

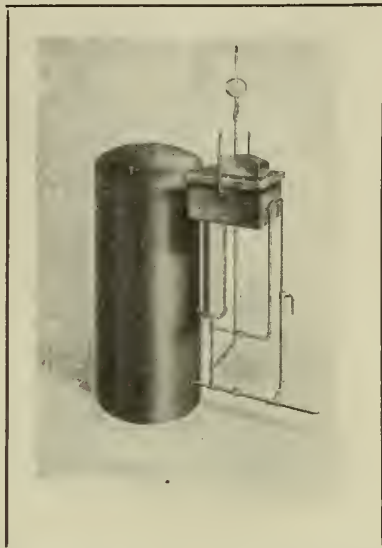
Philadelphia Office:  
5604 N. 4th St.  
Russell D. Knight, Sales Agent

Portland Office and Warehouse:  
550 Sherlock Bldg.  
H. A. Heppner & Co., Sales Agents  
Havana, Cuba, Office:  
San Ignacio No. 50  
Cagigas & Quesada, Sales Agents

For Simplicity and Efficiency  
there is no pump equal to the  
**KINEALY VACUUM PUMP**

Simplest  
to  
Install

Simplest  
in  
Operation



Gives  
Best  
Service

Has  
Lasting  
Qualities

The reason we make such strong claims for the **Kinealy Vacuum Pump** is because we can deliver the goods.

One installation will convince you.

Correspondence solicited from representatives in unoccupied territory.

**Kauffman Heating & Engineering Co.**  
ST. LOUIS, MO.

I'M  
NYE  
the  
Die  
Man



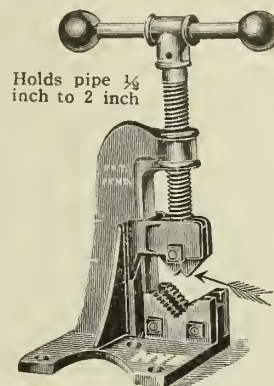
When My Bulldog  
Grabs a Root

I can raise him off the ground and throw him around in a circle. He has a grip like a Nye Pipe Vise. I have often wondered what would happen if that dog and a NYE PIPE

VICE ever clinched. I know the Nye Vise wouldn't let go or slip, and I've reasonable faith in the dog.

'Twould be a Great Day  
to Hang Around

The Nye Pipe Vise holds a pipe without allowing it to slip, is light and durable. A friend to every plumber or steamfitter.



Holds pipe  $\frac{1}{8}$   
inch to 2 inch

Net Price \$2.00 each

**THE NYE TOOL & MACHINE WORKS**  
114 N. Jefferson St., Chicago, Ill.

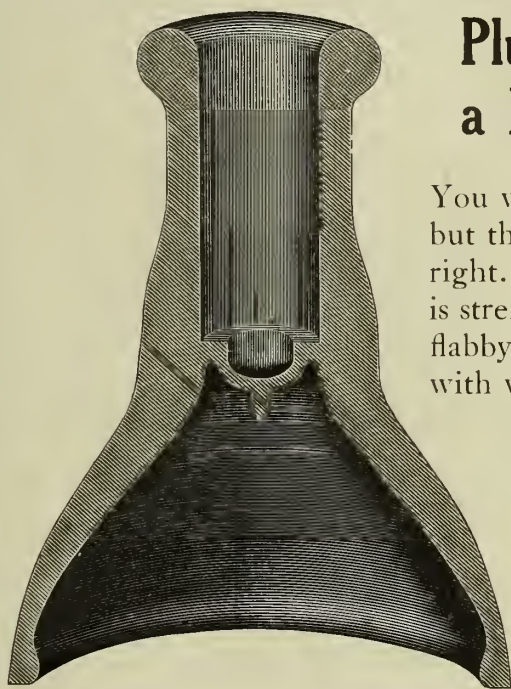
Plumbers Don't Care What  
a Force-cup Looks Like



You want to know if it will work. It might be beautiful, but the rubber must be right, the construction must be right. Note our regular valve cup here shown. There is strength and thickness of wall where it is needed. No flabby collapse is possible. It can be had either open or with valve. Write for further particulars on force-cups.

Everything in Rubber for the  
Plumber

The shield "M" line of Plumbers Specialties is complete in every detail. Special care is taken in the compounding of the stock to suit **Plumbing Conditions**. We carry all standard articles in stock and make to order all other specialties. You can profit by getting acquainted. Address Department "F."

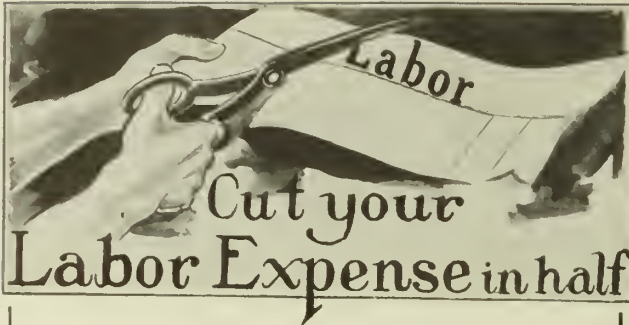


Style F-8727 with valve F-8728 open

**The Mechanical Rubber Co.**  
Cleveland, Ohio







You Can Do It by Using

## Anderson's High Grade Plumbers' Calking Tools

The time lost through using inferior tools, or by trying to makeshift with some tool not adapted to the purpose, adds materially to the labor costs during the year.

Using the Best Tools in Many Cases Has Cut Labor Expenses in Half.

We make everything in Plumbers' Calking Tools. The quality is right, so is the price.

Write today for our descriptive catalog.

**W. H. Anderson Tool & Supply Co.**

14-16 Macomb Street - - - Detroit, Mich.

## "Crawford Boilers"

FOR STEAM AND HOT WATER

*"Honest Ratings."*



Catalogue mailed upon application

FOR SALE BY

**JOHN WEEKES & SON CO.**

Watertown, N. Y.

Syracuse, N. Y.

## The Test of Years Proves the Climax Cellar Drainer



**RELIABLE DURABLE EFFICIENT**

Simple in construction, adjustable to suit water pressure.

Smallest consumption of service water for dead water discharged.

Principle of operating such that water is pushed up rather than being drawn, making its action positive and enabling a small live water orifice to accomplish the work.

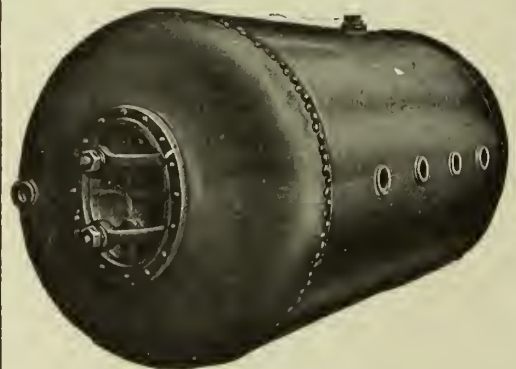
Stocked by Leading Jobbers.

**THE C. M. KEMP MFG. COMPANY**

BALTIMORE, MD.

## The Right Kind of BOILERS

(Large and small)



No matter what your boiler requirements are, we can meet them. We specialize on Cistern and Riveted Pressure Boilers—all sizes and pressures.

Thoroughly tested

Positively guaranteed

Your jobber can supply you

**GERSTEIN BROS. & COOPER**

Coppersmiths

1-3 W. Third St.,

So. Boston, Mass.

# TRIMO PHILOSOPHY

The game of business is a great game but you must hold the best cards in order to win out.  
For piping purposes use Trimo Tools. They are the best.



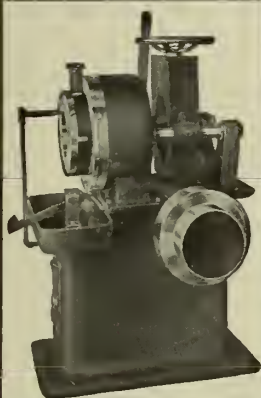
Trimo Pipe Wrench



Trimo Pipe Cutter

Made  
by the

**Trimont Mfg. Co., 55-71 Amory St., Roxbury, Mass.**



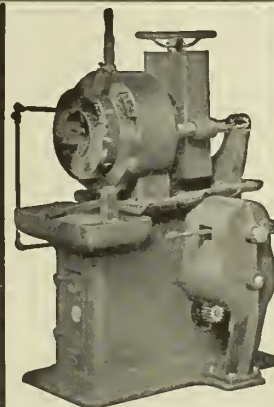
## Loew Victor Pipe Machines

*For Plumbing and Heating Contractors*

Belt Driven, Motor and Gasoline Engine Driven, also Hand Operated. Sizes— $\frac{1}{4}$  to 8 inches.

The most improved and substantial pedestal type of pipe machine on the market. Write for complete catalog showing time and labor-saving features.

**THE LOEW MANUFACTURING COMPANY**  
9000 Madison Ave., Cleveland, Ohio



## "Haas" Improved Frost Proof Closets

**No Experiment**—Have been under practical test for two years.  
**Absolutely** backed by the reputation of the makers for

### SERVICE AND SATISFACTION

**Open Seat (Back and Front)** reducing fouling surface to a minimum.

**Other New and Improved Features** found in **No** other.

Built on the **"Haas"** plan. That is, **substantially**, with no flimsy parts.

All parts **interchangeable and renewable**.

And the price? **It's** right. Write us or ask your jobber.



Combination No. 1-1



Combination No. 1-2

**PHILIP HAAS CO., Makers, Dayton, Ohio**

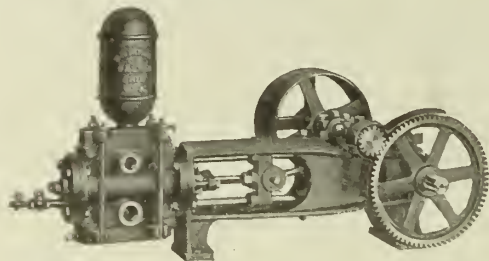
Watch for the **"Haas"** LOCAL SELF-VENTING CLOSET. Automatic, Seat Acting. **It's a Wonder.**

Kindly quote "Domestic Engineering" in writing advertisers.



# Deming

## Hand and Power Pumps



If you are interested in hydro-pneumatic water supply systems, write for book of "Deming Water Systems," and special bulletin of pump shown herewith, Fig. 708.



**The Deming Company, Salem, Ohio**

ENGINEERING AGENCIES:

Heun & Hubbell, Chicago, Ill. Harris Pump & Supply Co., Pittsburg, Pa.  
Ralph C. Carter Co., New York City, N. Y.



## There Is Only One

genuine white sheet Pyralin. Don't confuse it with enamel coating—the two are so different.

## "Genuine Pyralin"

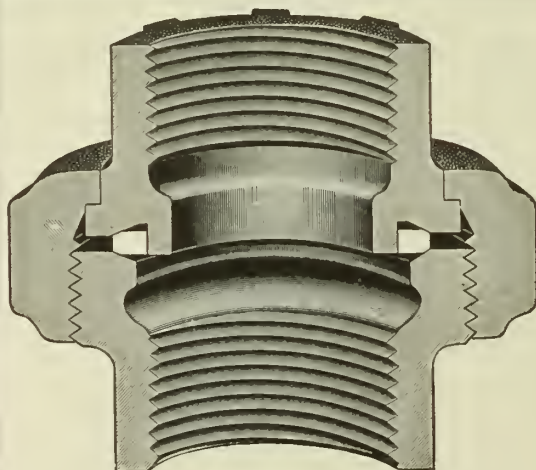
is a white sheet covering put on by our patented process. The result will astonish you.

Our Catalog belongs to you.

**C. F. Church Mfg. Co.**

**Holyoke, Mass.**

There isn't a streak of yellow in "Genuine Pyralin"



THE TWO WHITE SPOTS SHOW BRASS DISC.

## C. D. RAILROAD UNION

Heavy Pattern, Air Furnace Malleable Iron with Brass Valve Seated Disc.

ALSO MANUFACTURERS OF

**MALLEABLE AND CAST IRON FITTINGS  
AND HOUSE HEATING BOILERS**

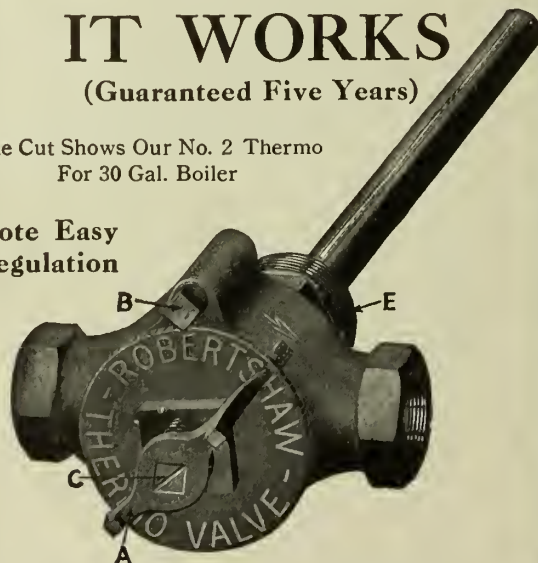
Write for Description and Prices.

**ILLINOIS MALLEABLE IRON CO.**  
1801-25 DIVERSEY PARKWAY, CHICAGO, ILL.

## This Thermostat IS MADE RIGHT Therefore IT WORKS (Guaranteed Five Years)

The Cut Shows Our No. 2 Thermo  
For 30 Gal. Boiler

Note Easy  
Regulation



**ROBERTSHAW MFG. CO.**

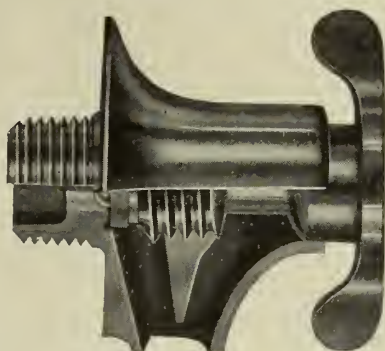
**PITTSBURGH, PA.**

## Mr. Plumber:

You have been consigned to "demnition bow wows" more than any other mechanic simply because you have been unable to obtain faucets that gave your customers satisfactory service.

### Nopack Bibbs

will set you right. No more complaints from loose handles, leaky packing and the numerous defects of other faucets.



NOPACK Wash Tray Bibb  
No 100. (Sectional View)

### Nopack Bibbs

Made in two pieces without top packing, will last a life time. Tested under 200 lbs. hydraulic pressure, will not leak. Proven by four years of the severest tests. Thousands in daily use. Absolutely guaranteed. Money back if not satisfactory.

If your jobber does not have them send us his name

**Nopack Brass Mfg. Co.**

Du Bois, Pa.

Philadelphia Office, 527 Perry Building

SOMETHING ENTIRELY NEW IN

## SILL-COCKS

Semi-Finished, Polished aluminum wheel Style N. Style O—Heavy rough pattern built for service.



STYLE N

Both shown in Catalog D.

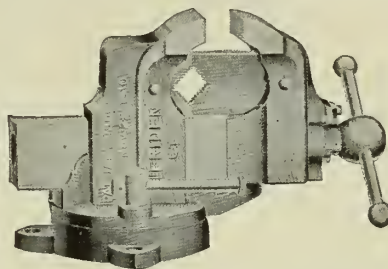


STYLE O

KINSEY & MAHLER CO.

PEORIA, ILL.

## ALL PLUMBERS AND FITTERS HAVE VISES



But All of Them have not found out that the

**Parker Combination Vise**

is the best on the market. Six sizes and every one O. K. Sold by all jobbers.

**CHAS. PARKER CO.**

Factories: Meriden, Conn.

New York Sales Rooms, 32 Warren St.

## "CONTINENTAL"

IS THE WORD WHEN APPLIED TO  
COPPER RANGE BOILERS

You will find the "CONTINENTAL" the most durable and satisfactory boiler made. Nothing to wear out. Adds a satisfied customer to your list every time. Try it. Ask for details.

**JOHN TRAGESER  
STEAM COPPER  
WORKS**

447-457 W. 26th Street  
New York City



4



## SMOOTH-ON

### IRON CEMENTS

Smooth-On Iron Cement No. 1, Blue Label, is used by plumbers and steamfitters for stopping leaks of steam, hot or cold water in boilers, piping, castings, etc.

Our new 104-page free illustrated instruction book is of great value to all plumbers and steam fitters. Send for it now.

**Smooth-On Mfg. Co.,**

Jersey City, N. J.

221 North Jefferson Street,  
Chicago

36 Sacramento Street,  
San Francisco

1221 Westinghouse  
Bldg., Pittsburgh



SEND  
FOR  
THIS  
FREE  
BOOK

Kindly quote "Domestic Engineering" in writing advertisers.





Our Arsenal Is Full  
A Repeater for Every Order  
**The Bowlus Royal  
Water Closet**

The **AUTOMATIC** Repeater, operates **Positively** and **Noiselessly** for Years.

One active part—Durability and long life. Neat—Sanitary. Over thirty supply houses are among our new customers for February.

**GUARANTEED**

Write us or consult your Jobber.

**THE BOWLUS MFG. CO.**  
Springfield, Ohio



### Is Your Basement Flooded?

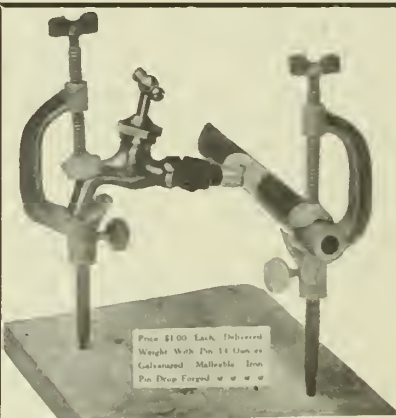
Is your Hydraulic Cellar Drainer stopped up with shells, fish or lime, or is the water pressure operating it too weak? With the

**"Little Giant Electric Cellar Drainer"**

you can overcome all the above difficulties—it has plenty of power, is Oil Lubricated throughout and is the **SMALLEST, NEWEST and BEST ELECTRIC BILGE PUMP** on the market.

Write now for Particulars

Chicago Pump Co., 903 W. Lake St., Chicago



### Dollar Back WIPING CLAMPS

For Sale by the  
Jobbers, or

Griffin Specialty Co.  
506 W. 26th St.  
NEW YORK CITY

### Elsmere Granitine Laundry Trays



Made in 1, 2 and 3  
part sizes.

With Patent Metallic  
Casings

Brass Fittings and  
Wringer Guards

Durable Cheap  
Beautiful

Write for a descriptive circular of the tray with a record

**ELSMERE GRANITE CO.**

1752-1756 N. Spaulding Ave.

Chicago

ALWAYS USE

### The Bullard Roof Flange

*"The Flange Without a Flaw"*

BOOKLET ON REQUEST

**THE BULLARD SPECIALTY CO.**

Dept. D.

TIFFIN, OHIO

### Once Tried—Always Used

When people find out how easily they can clean water-closet bowls with Sani-Flush, they become regular users.

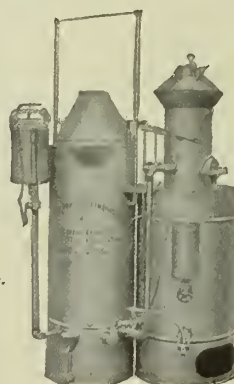
Nothing equals Sani-Flush for the purpose. It does no harm to the bowl or plumbing.



**Sani-Flush**  
Cleans Water-Closet Bowls

We are telling several million women about Sani-Flush by magazine advertising. You can share in the benefit of this publicity by letting people see Sani-Flush in your show room.

**The Hygienic Products Co.**  
Canton, Ohio



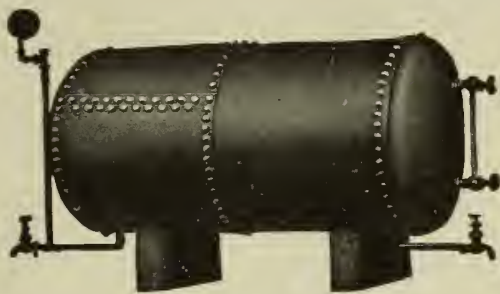
**G**IVE your Customers Light made by the **IDEAL EPWORTH Generator** which is guaranteed to give satisfaction and each sale will bring you another.

**Ideal Epworth Acetylene Co.**

General Office:  
**Johnstown, Pa.**

Branch Offices:  
Waterloo, Iowa      Anderson, S. C.

## Scaife Pneumatic Tanks



furnished in  
Riveted, Brazed or Welded Construction

Scaife Range Boilers  
Storage Tanks  
Expansion Tanks

**Wm. B. Scaife & Sons Co.**

Founded 1802

PITTSBURGH, PA.

26 Cortlandt St., NEW YORK CITY

## Don't Let Habit Blind You to Economy



Don't let the so-called "convenience" of ready-mixed cements overshadow the great economy effected by the use of H-O Pipe Joint Cement.

One pound of H-O Cement goes as far as four pounds of the ordinary kind, yet H-O costs no more per pound. Therefore H-O will save you practically 75 per cent on your pipe joint cement costs.

## H-O PIPE JOINT CEMENT

is sold in ready-to-mix form. It contains no water or oil for which you pay the same price per pound as for the cement when buying ready-mixed cements.

H-O not only costs you less than ordinary cements, but makes a better joint because it expands after the joint is made.

H-O being a dry powder, will keep indefinitely. It does not dry out or become worthless.

Joints made with H-O can easily be uncoupled without injury to fittings. It does not stain tile or marble, contains no poison, is not oily and does not wash out of the pipes.

Write our nearest branch for sample and booklet.

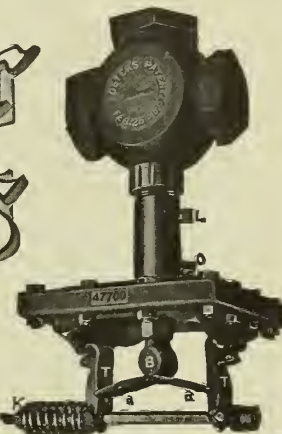
## H. W. JOHNS-MANVILLE CO.

Albany	Cincinnati	Kansas City	New Orleans	San Francisco
Baltimore	Cleveland	Los Angeles	New York	Seattle
Boston	Dallas	Louisville	Omaha	St. Louis
Buffalo	Detroit	Milwaukee	Philadelphia	Syracuse
Chicago	Indianapolis	Minneapolis	Pittsburgh	1829

THE CANADIAN H. W. JOHNS-MANVILLE CO., LIMITED

Toronto Montreal Winnipeg Vancouver

## Foster Valves



"Reliability Their  
Main Feature"

The aim of a pressure regulating device is economy, whether it be for back pressure or delivery service. To insure this economy, however, demands the installation of a reliable device. There should be no uncertainty regarding its quick, accurate operation.

The Foster "Class Q"

or

"Class QH" Valves

are perfect low pressure regulators and are extensively used in connection with the Webster System of steam heating.

"Class Q" has equal sized inlet and outlet. "Class QH" has small inlet and large outlet.

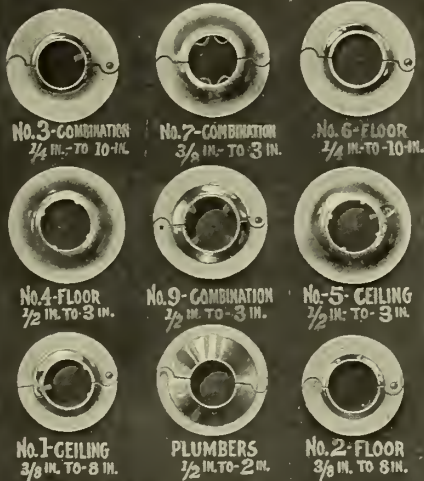
Our catalog gives full description of High Pressure Regulator, Non-Return Stop Valves, Back Pressure Valves, Float Valves, Free Exhaust Valves and Pump Governors.

**The Foster Engineering Co.**  
Newark, N. J.

508 Harrison Bldg., Philadelphia, Pa.  
108 N. Dearborn St., Chicago, Ill.

161 Summer St., Boston, Mass.  
518 Park Bldg., Pittsburgh, Pa.

ADJUSTO-SLEEVES  $\frac{1}{2}$  IN. TO 3 IN.



MANUFACTURED BY  
**THE BEATON & CORBIN MFG. CO.**  
FACTORY SOUTHINGTON CONN. N.Y. OFFICE 210 WATER ST.





C

It costs no more to install a noiseless closet than the old-style noisy kind. So why not handle the

## Codru Combination No. 2

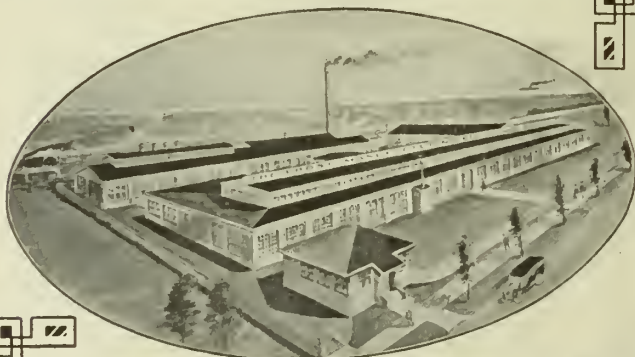
An absolutely NOISELESS closet  
No break in seal  
Real syphon principle—jet above water line  
No jet pipes exposed

### Patent Tanks

Neat, attractive, sanitary  
Improved hollow cover fits tank perfectly.  
Air space in hollow wall does away with all condensation trouble.

Specify the Codru Combination No. 2. Your jobber can supply you.

**New Jersey China Pottery Co.**  
Trenton, N. J.

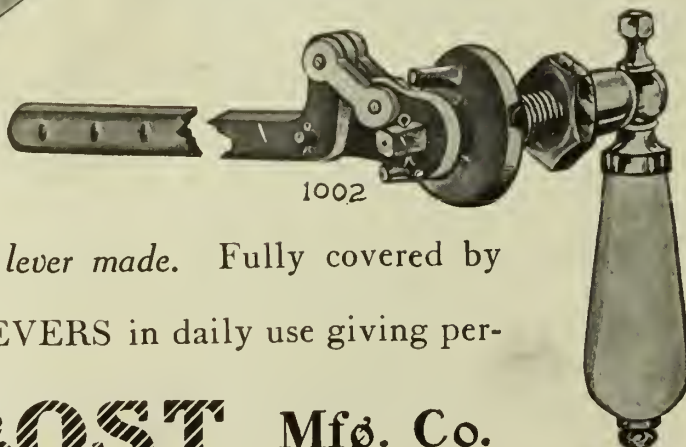


Home of "FEMCO" Products

## The "FEMCO" LEVER

for low down tanks speaks for itself.

Like all other "FEMCO" Products, it is alone in its class. An ornament to any tank.



*Most convenient and durable lever made.* Fully covered by patents.  
Thousands of "FEMCO" LEVERS in daily use giving perfect satisfaction.

The **FROST** Mfg. Co.

KENOSHA.

WISCONSIN.



Look at it well. It's a sign of the times in the heating business. It's the trademark of

*See that Sign*



**International Heaters**

The consumers are looking for the man who displays this sign on his store front. They know that when they buy an International Heater from him they are buying satisfaction, durability, economy and comfort.

Here's the Empress Sectional Boiler, for instance. It is gaining friends every day. Just read this one of many letters that we have from dealers who are installing this boiler.



*Karr Supply Company*

*Engineers and Contractors for Hot Water and Steam Heating, Plumbing, Sewering, Gas Fitting*

International Heater Co.,  
Chicago, Ill.

Belleville, Ill., 1-4-12

Gentlemen: We have your letter of December the 26th. We have installed a large number of "Empress" Steam and Hot Water Boilers of various sizes from the smallest to the largest and have found them most eminently satisfactory in every respect. We are pleased with the "Empress" and recommend the same to our customers in preference to any other boiler with which we have had experience.

Very truly yours,

KARR SUPPLY CO.

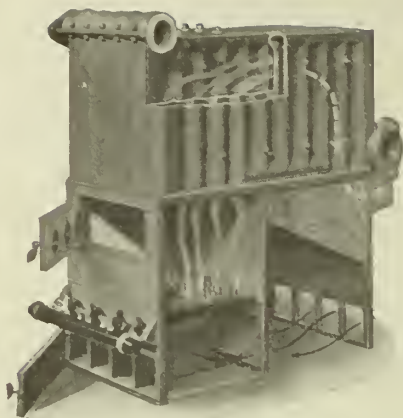
**International Heater Company**

**Makers of Heating Apparatus**

**Utica, New York**

Branches and Warehouses: NEW YORK, 601 W. 27th St.; BOSTON, 162-172 Washington St., North; CHICAGO, 1933 Wentworth Ave.  
DISTRIBUTORS: Fred. W. Gillette & Co., Denver, Colo.; Farwell, Ozmun, Kirk & Co., St. Paul, Minn.; Waldon Company, Winnipeg, Man.





## THE SCIENTIFIC GAS BOILER

represents the greatest advance ever made in boiler design. We ask you to accept our rigid guarantee and install only one. Re-orders will chase you after that.

**Get Busy and Write Now**

**The Scientific Heater Co.**  
Power Avenue Cleveland



## Wyco Aseptic Seat

Covered by our special process. **Guaranteed to remain white.** Will not chip, crack or flake. Acid and water proof. Non-absorbent. Neat design. Best construction. Write for details.

**WYCO PRODUCTS CO.**  
SPRINGFIELD, MASS.

We are alone in covering plumbers' metal work

## Something New



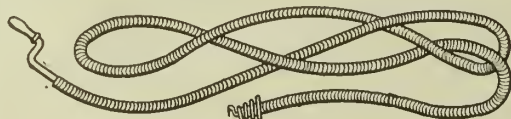
### Rex Anti-Rust Compound

prevents rust and scale forming on the heater castings during the summer when heater is not in use.

Best discount to dealers and full size quart can sent postpaid for 50 cents (retail price).

**A. G. King & Company**  
Reading, Pa.

## FLEXIBLE WASTE PIPE CLEANER



Made of the best imported German piano wire, will easily take the closest bends.

No. 1—15-ft. Cleaner,  $\frac{3}{8}$ " Diameter . . . **\$2.50**  
No. 2—25-ft. Cleaner,  $\frac{3}{8}$ " Diameter . . . **3.75**

No. 1 express paid to any point, United States or Canada, for **35c** extra, and No. 2 for **50c** extra.

### Free For The Asking!

**Starbuck's "1913" Catalog of Plumber's Tools**  
Every tool a plumber uses. Lots of new tools.

### Starbuck's "1913" Publication Catalog

showing Starbuck's great line of books on plumbing and heating, plumber's estimate books, time cards, contract forms, etc.

**Both Catalogs Just Published**

**R. M. Starbuck & Sons**  
63 Asylum St., Hartford, Conn.



"ADSCO" Graduated  
Radiator Valve

## STEAM HEATING BY THE ATMOS- PHERIC SYSTEM

Enables you to have the **RIGHT** amount of heat in the **RIGHT** place and at the **RIGHT** time.

Write for our "Booklet G" and learn how you can reduce your **HEAT BILLS** 20 to 35 per cent.

### American District Steam Co.

General Offices and Works

North Tonawanda, N. Y.

CHICAGO

LOCKPORT, N. Y.



## Burnham Grates Shake Half At a Time

THEY not only shake half again as easy, but save coal in mild weather, as the front half of the grate can be fired and the other half banked with ashes. This ease of operation and coal saving will promptly appeal to your customers.

All operating parts on the front. Push nipple, short tie bolt connected. Three times back and forth fire travel.

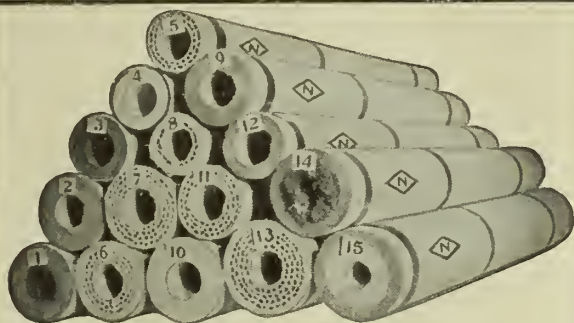
Send for the Tall Catalog.

### Lord & Burnham Company

Irvington, N. Y.

Troy, N. Y., Aird-Don Co.  
Chicago, Davies Supply Co.  
Philadelphia, Haynes-Thompson Co.  
Providence, Allen & Reed, Inc.

Boston, 819 Tremont Bldg.  
Minneapolis, Roberts-Hamilton Co.  
Johnstown, Pa., Union Radiator Co.  
Fort Dodge, Iowa, Leighton Supply Co.



- |                              |                            |
|------------------------------|----------------------------|
| 1. Cold Water Felt.          | 2. Standard Felt.          |
| 3. Sweat Proof Felt.         | 4. Asbestos Vim.           |
| 5. 2-ply Asbestos Air-cell.  | 6. 3-ply Asbestos Conomie. |
| 7. 4-ply Asbestos Air-cell.  | 8. 1-ply Asbestos Conomie. |
| 9. Low Pressure Felt.        | 10. Magnesia Asbestos.     |
| 11. 3-ply Asbestos Air-cell. | 12. Hot Water Felt.        |
| 13. 4-ply Asbestos Conomie.  | 14. Frost Proof.           |
| 15. Ideal.                   |                            |

Some Few Reasons Why You Should Use  Pipe Covering

A Section is 36" Long—ALWAYS

Care is taken in packing as well as in making, so the covering will make a clean, neat job when finished.

Only the best materials are used in the manufacture of each class of covering.

Prompt answers to inquiries, prompt attention to orders and finally prompt shipments put you in a position to complete your work and get your money.

Write us for prices

### Norristown Magnesia & Asbestos Co.

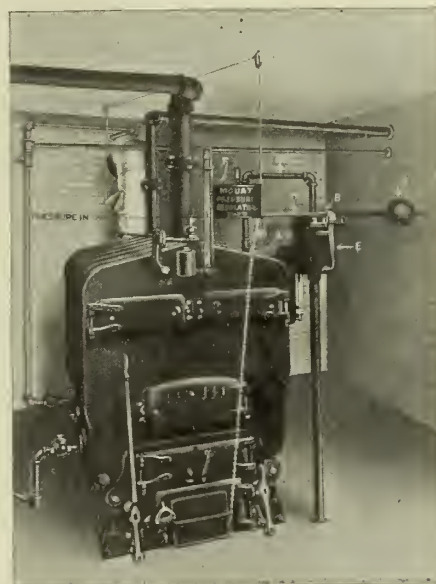
NORRISTOWN, PA.

## THE MOUAT VAPOR HEATING SYSTEM

Positive temperature control at each radiator.

No air vents to bother with.

No odors, leakage, or noise.



The Mouat Automatic Pressure and Damper Regulator is the simplest, safest and most efficient device of its kind on the market. Send for booklet.

### THE MOUAT-SQUIRES COMPANY, Cleveland, Ohio





**New**

*This valve can be carried in stock ready for installation on any job of vapor heating.*

## Detroit Vapor Valve

The new Detroit Multi-Port is made in only one size, which can be installed and, after the system is in operation, be adjusted to pass *exactly* the right amount of vapor to fill the radiator without heating the return pipe.

Regardless of the radiator's size, distance from boiler and other varying conditions, this one valve will meet the requirements of that radiator and balance the system exactly.

There is no need of ordering in advance special valves for a job and waiting for them—nor of removing the valve to alter it or substitute new parts. No bother or loss of time at all.

Write for catalog V-36, showing all Detroit Valves.

**DETROIT LUBRICATOR COMPANY.**

DETROIT, U. S. A.

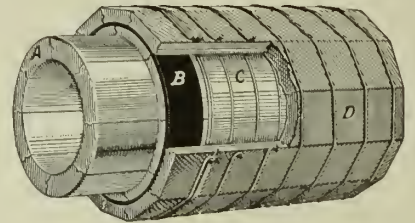
*Largest Manufacturers of Heating Valves in the World.*

A—2" Thick Inner Shell.

B—Asphaltum Packing.

C—1/4" Dead Air Space.

D—1" Thick Outer Shell.



## The Cheapest Steam Pipe Covering

both in initial cost and after results is Wyckoff's Improved Cypress Steam Pipe Covering, made from Gulf Cypress—"The Wood Eternal." 60% cheaper than the next best and 100% more durable than any pine or tamarack casing. It is the only one with a dead air space between the shells. It is the only one with a total thickness of 3 3/4 in. We coat the heavy galvanized wire with Hydrolene B which is guaranteed not to get soft and run in summer or become brittle and check off in winter. It will pay you to send for full particulars. We've an interesting little book here awaiting your name and address.

A. WYCKOFF & SON COMPANY, ELMIRA, N. Y.

Plumbers and Steamfitters  
who know say that the

## Hanna "Ball Joint" Pipe Hanger

is the

**SIMPLEST  
STRONGEST**

No.

1.



hanger ever made.

Note the Ball and Socket joint. Hanger can swing in any direction. Not necessary to remove hanger to raise or lower pipe.

Neat, convenient, practical. Guaranteed.

Write for  
"Our Silent Salesmen"

**The Penn Engineering Co.**

Philadelphia, Pa.

**Would you  
use—**

three men and a truck to carry a package that a boy can put in his pocket?

Of course not.

Then why use three lag screws and a wrench to fasten your pipe vise, when a few turns of the wrist will clamp a Mark Kit Vise firmly just where you want it?

This is the same vise exactly that we have sold for years, with the simplest, strongest clamp you ever saw, added on.



Vise with Attachment



Pat. Applied For

*And you need one.*

**Mark Manufacturing Co.**

P. O. Box G, CHICAGO

# Bonwit-Teller Building, New York City



The Heating and Ventilating of This Eleven-story Office and Store Building is Described in Detail on Pages 368 to 372 of This Issue, with Complete Plans.



# JOHNSON

## REGULATING AND REDUCING VALVES

FOR

### All Pressures and Purposes



Steam Reducing Valve

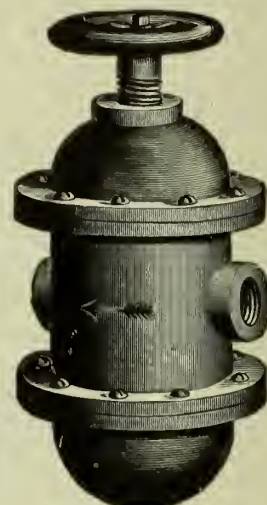
Simple in construction  
No pistons to leak, bind or stick  
Diaphragm made of best quality  
Phosphor-Bronze  
Will stand high pressure

No springs in steam space to corrode and weaken from heat and moisture.

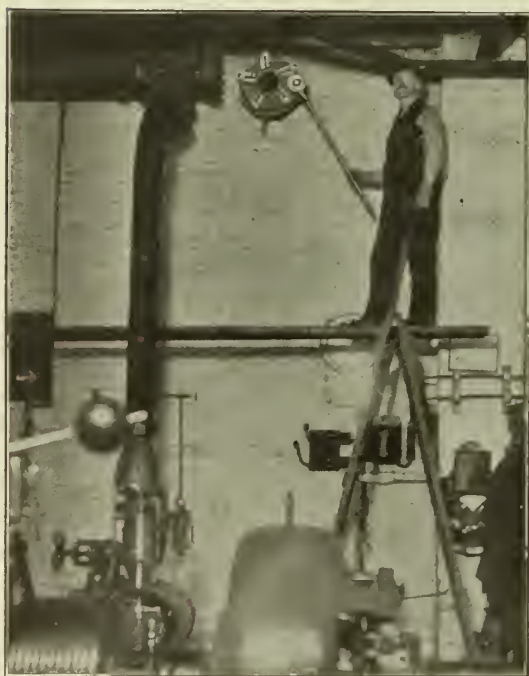
High grade valves at reasonable prices.

**JOHNSON SERVICE COMPANY**

Main Office and Factory  
Milwaukee, Wis.



Air Regulating Valve



### OF COURSE, IT'S EASY TO THREAD WITH A "TOLEDO"

Here's a case where a six-inch pipe projecting just ten inches thru the wall, and twelve feet above the floor had to be threaded. There were but two alternatives—either take the pipe down and take it to machine shop to have it threaded or put a Toledo No. 3 tool right on the pipe as it projected thru the wall, and there cut the threads.

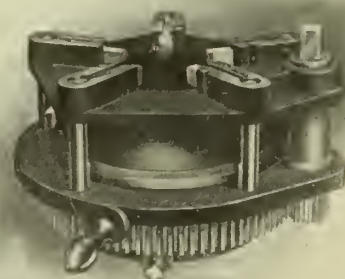
The picture shows how the Toledo No. 3 tool was used and the six-inch threads cut by one man, without disturbing the pipe.

A few such jobs as this one, and you will pay for an equipment of "Toledos."

Write for Booklet, "A Pipe Threading Miracle"

**THE TOLEDO PIPE THREADING  
MACHINE CO., Toledo, Ohio**

NEW YORK OFFICE, 1182 BROADWAY



Kindly quote "Domestic Engineering" in writing advertisers.



## The Most Economical of Pipe Cutting and Threading Machines

The Forbes saves the labor of from one to four men, requires one quarter the floor space of the lathe bed type. Cuts off and threads pipe from  $\frac{1}{4}$  to 15 inches perfectly. It's built for speed and durability.

*Let us send you a copy of our new catalog*

**THE CURTIS & CURTIS CO., 25 Garden St., Bridgeport, Conn., U.S.A.**

## The Emery Self-Raising Seat

GUARANTEED FOR FIVE YEARS



Patented 1908-09

*Write for Sample on Approval*

**WM. S. EMERY, 74-78 Cliff St., New York City**

Automatic stop prevents swinging back too far.

No weights. Close roughing in. Heavy cast brass hinges. Seats of any style can be furnished with these hinges.

Power furnished by four Electro-Galvanized Steel Springs, of graduated lengths and diameters, confined in each hollow post.

## ADJUSTABLE RADIATOR FOOT REST

Sold  
by  
Jobbers



Send  
for  
Sample

Patented  
Dec. 8, 1908

**JENNISON CO. Fitchburg, Mass.**



No. 1 Pattern For Standard Bowls

## The Cowan Open Seat

Unequaled for strength, durability and sanitary qualities.

The COWAN OPEN SEAT when covered with PORCELOID is the latest word in closet seat perfection—absolutely top-notch quality.

PORCELOID is a celluloid compound covering *put on to stay*—becomes a part of the wood itself. Will never discolor, chip or crack.

The COWAN OPEN SEAT is made in five different patterns.

Write for Catalog of these seats in all finishes, also Catalog "B" showing PORCELOID covered seats and bath room fixtures.

**Sanitary Specialties Co.**

1824-36 East Clearfield Street  
Philadelphia, Pa.



*is the whitest white you ever saw*



No. 2 Pattern for Maddock's  
"Ariston" and Trenton Potteries  
"965-K" Bowls



# INDEX TO ADVERTISEMENTS

**NOTICE TO ADVERTISERS:** Copy and cuts for advertisements intended for a particular issue should reach the office of Domestic Engineering on Monday of the previous week if it is desired that a proof of the advertisement shall be submitted. New advertisements can be received up to noon of Monday of the week of issue, but no proof can be shown.

The Star (\*) Indicates that the advertisement is inserted every other week, the dagger (†) once a month

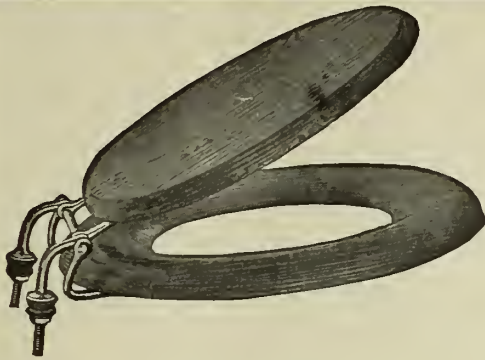
March 29, 1913.

A	
†Acme Engineering Co., Chicago.....	--
*A. D. Manufacturing Co., Detroit, Mich.....	--
†Albermarle-Hoffman, New York City.....	82
*American District Steam Co., North Tonawanda, N. Y.....	17
†American Steam Pump Co., Battle Creek, Mich.....	--
†Anderson-McCutchen Co., Peekskill, N. Y.....	--
*Anderson Tool & Supply Co., H. H., Detroit.....	8
*Andrews Heating Co., Minneapolis, Minn.....	--
Armstrong Mfg. Co., Bridgeport, Conn.....	5
Auburn Leather Goods Co., Auburn, N. Y.....	74
Ayling & Reichert Co., Toledo, O.....	--
B	
*Badger & Sons Co., E. B., Boston....	4
*Barrett Mfg. Co., The Jas., Boston.....	--
.....Inside back cover	
*Bayley Co., J. L., Minneapolis, Minn.....	--
*Beaton & Cadwell Mfg. Co., New Britain, Conn.....	--
*Beaton & Corbin Mfg. Co., Southington, Conn.....	13
*Belknap Mfg. Co., Bridgeport, Conn.....	--
*Bell (Andrew) Estate of, Newark, N. J.....	82
*Berger Bros. Co., Philadelphia.....	--
*Bignall & Keeler Mfg. Co., Edwardsville, Pa.....	--
Borden Co., Warren, O.....	--
Boston Brass Co., Boston.....	--
.....Inside back cover	
Bowlus Mfg. Co., H. C., Springfield, O.....	12
Bremen Mfg. Co., Bremen, O.....	76
Buckeye Brass & Mfg. Co., Cleveland, O.....	76
*Buell Bros., Fulton, N. Y.....	--
Bullard Specialty Co., Tiffin, O.....	12
*Burlington Brass Works, Burlington, Wis.....	--
C	
Cahill Iron Works, Chattanooga, Tenn.....	6
*Campbell Mfg. Co., Gadsden, Ala.....	--
.....Inside back cover	
Canfield Co., H. O., Bridgeport, Conn.....	12
Capitol Brass Works, Detroit.....	--
*Central Brass Mfg. Co., Cleveland, O.....	--
*Chicago Faucet Co., Chicago.....	12
Chicago Pump Co., Chicago.....	12
Church Mfg. Co., C. F., Holyoke, Mass.....	10
*Cleveland Brass Mfg. Co., Cleveland.....	--
Cleveland Flush Meter Co., Cleveland, Ohio.....	--
*Compound Injector & Specialty Co., Chicago.....	--
*Consolidated Engineering Co., Chicago.....	--
†Continental Hotel, Philadelphia.....	--
*Crawford Co., Chicago.....	--
*Cripps Mfg. Co., A. G., Akron, O.....	--
†Cudell, F. E., Cleveland, O.....	--
Curtis & Curtis Co., Bridgeport, Conn.....	67
D	
Dahl Mfg. & Sales Co., Minneapolis, Minn.....	--
*Davis, Louis N., West Chester, Pa.....	--
Deming Co., The, Salem, O.....	10
*Detroit Brass Works, Detroit, Mich.....	--
*Detroit Heating & Lighting Co., Detroit, Mich.....	80
*Detroit Lubricator Co., Detroit.....	18
Detroit Metal Spinning Co., Detroit, Mich.....	76
Detroit Sanitary Supply Co., Detroit.....	80
Dixon Crucible Co., Joseph, Jersey City, N. J.....	--
.....Inside back cover	
*Donovan, D. A., Auburn, N. Y.....	--
Double Blast Mfg. Co., North Chicago, Ill.....	--
Dunham Co., C. A., Marshalltown, Iowa.....	5
E	
*Ebinger Sanitary Mfg. Co., D. A., Columbus, O.....	--
Eljer Co., Cameron, W. Va.....	Back cover
*Elsmere Granite Co., Chicago.....	12

Emery, Wm. S., New York City.....	67
.....Front cover and	
*Estabrook's Sons, R., So. Boston, Mass.....	4
F	
Fanning, Benjamin, Rochester, N. Y.....	--
*Federal-Huber Co., Chicago.....	--
†Foster Engineering Co., Newark, N. J.....	13
Frost Mfg. Co., Kenosha, Wis.....	14
G	
*Gealy Wrench & Mfg. Co., Grove City, Pa.....	--
*Gerstein Bros. & Cooper, South Boston, Mass.....	8
Globe Gas Light Co., Boston, Mass.....	4
†Graham Chem. Potteries Wks., Chas., Brooklyn.....	--
*Great Western Pottery Co., Kokomo, Ind.....	--
Griffin Specialty Co., New York City.....	12
H	
*Haas Co., Philip, Dayton, O.....	9
Ham Mfg. Co., C. T., Rochester, N. Y.....	--
Hamburg Boiler Works, Hamburg, Pa.....	--
Hart Mfg. Co., Cleveland, O.....	--
*Hayes Mfg. Co., Paterson, N. J.....	--
†Heating Engineering School, Camden, N. J.....	--
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.....	74
*Hoffman Heater Co., Lorain, O.....	--
Honeywell Heating Specialty Co., Wabash, Ind.....	--
*Humphrey Co., Kalamazoo, Mich.....	--
Hygienic Products Co., Canton, O.....	12
I	
Ideal Epworth Acetylene Co., Johnstown, Pa.....	12
Illinois Engineering Co., Chicago.....	4
*Illinois Malleable Iron Co., Chicago.....	10
*Imperial Brass Mfg. Co., Chicago.....	--
†International Heater Co., Utica, N. Y.....	15
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.....	77
J	
Jennison Co., Fitchburg, Mass.....	67
†Jewell Mfg. Co., Auburn, N. Y.....	--
*Johns-Manville Co., H. W., New York City.....	13
*Johnson Service Co., Milwaukee, Wis.....	20
K	
Kauffman Heating & Engineering Co., St. Louis, Mo.....	7
*Kellogg-Mackay Co., Chicago.....	--
*Kelly & Bros., Thos., Chicago.....	--
*Kelly Brass Works, Chicago.....	--
Kemp Mfg. Co., C. M., Baltimore, Md.....	8
*Kennedy Valve Mfg. Co., Elmira, N. Y.....	--
*Kewanee Boiler Co., Kewanee, Ill.....	--
King, A. G., & Co., Reading, Pa.....	16
*Kinsey & Mahler Co., Peoria, Ill.....	11
*Kohler Co., Sheboygan, Wis.....	--
*Kroeschell Bros. Co., Chicago.....	--
L	
*Lavigne Mfg. Co., Detroit, Mich.....	4
Leader Iron Works, Decatur, Ill.....	9
Leow Mfg. Co., Cleveland, O.....	9
*Logansport Radiator Equipment Co., Logansport, Ind.....	--
Lord & Burnham Co., Irvington, N. Y.....	17
M	
*Maddock's Sons Co., Thos., Trenton, N. J.....	--
*Mark Mfg. Co., Chicago.....	18
†Marsh & Co., Jas. P., Chicago.....	--
†Mechanical Rubber Co., Chicago.....	--
*Mechanical Rubber Co., Cleveland, O.....	7
*Moline Vacuum Vapor Heating Co., Moline, Ill.....	79
†Monarch Brass Co., Cleveland.....	78
*Monitor Steam Generator Mfg. Co., Landisville, Pa.....	--
*Morency-Van Buren Mfg. Co., Sturges, Mich.....	--
*Mouat-Squires Co., Cleveland, O.....	17
Mueller Mfg. Co., H., Decatur, Ill.....	--
.....Front cover and	
Murdock Mfg. & Supply Co., Cincinnati, O.....	76

N	
*National Steel Tank & Mfg. Co., Bradford, Ill.....	--
*National Steam Specialty Co., Chicago.....	--
.....Inside front cover	
*Neuman-Warnock Co., Beaver Dam, Wis.....	--
Never-Split Seat Co., Evansville, Ind.....	76
New Jersey China Pottery Co., Trenton, N. J.....	14
*Noiseless Float Valve Mfg. Co., Rock Island, Ill.....	--
Nopack Brass Mfg. Co., DuBois, Pa.....	11
*Norman & Co., C. Erwin, Chicago.....	--
Norristown Magnesia & Asbestos Co., Norristown, Pa.....	17
Nye Tool & Machine Works, Chicago.....	7
O	
*Oster Mfg. Co., Cleveland, O.....	69
P	
Parker Co., Chas., Meriden, Conn.....	11
*Penn Engineering Co., Philadelphia.....	18
*Peerless Selling Co., Evansville, Ind.....	81
*Perkes, Chas., Estate of, Philadelphia, Ill.....	--
Peterson Mfg. Co., H. L. E., Elgin, Ill.....	--
*Pfau Mfg. Co., The, Cincinnati, O.....	73
*Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.....	--
*Prior Brass Mfg. Co., Kansas City, Mo.....	71
*Prudential Heating Co., Akron, O.....	--
Q	
Quinn Mfg. Co., Kalamazoo, Mich.....	--
R	
*Rapid Tap Plug Co., Grand Rapids, Mich.....	--
*Raymond Lead Co., Chicago.....	--
Rice Mfg. Co., Edw. J., Rochester, N. Y.....	82
Rickersberg Brass Co., Cleveland, O.....	--
.....Front cover	
Robertshaw Mfg. Co., Pittsburgh.....	10
*Rome Sanitary Co., Rome, N. Y.....	--
Ross Valve Mfg. Co., Troy, N. Y.....	--
.....Inside back cover	
S	
Sanitary Specialties Co., Philadelphia, Pa.....	67
*Saunders' Sons, D., Yonkers, N. Y.....	--
*Scaife & Sons Co., Wm. B., Pittsburgh.....	13
Scientific Heater Co., Cleveland, O.....	16
Smooth-On Mfg. Co., Jersey City, N. J.....	11
Spies Mfg. Co., Abingdon, Ill.....	69
†Standard Pump & Engine Co., Cleveland, O.....	--
Standard Sanitary Mfg. Co., Pittsburgh, Pa.....	--
Starbuck, R. M., & Sons, Hartford, Conn.....	16
Strand Heater & Mfg. Co., Cleveland, O.....	4
†Street & Kent Mfg. Co., Chicago.....	--
Strickler, W. W., & Bros., Columbus, O.....	4
T	
*Teahen, Jas. M., Detroit, Mich.....	--
Thomas & Smith, Inc., Chicago.....	82
Toledo Pipe Threading Machine Co., Toledo, O.....	20
Tower, F. W., Springfield, Mass.....	82
Trageser, John, Steam Copper Works, New York City.....	11
*Trane Co., La Crosse, Wis.....	--
Trenton Brass & Machine Co., Trenton, N. J.....	--
*Trenton Potteries Co., Trenton, N. J.....	--
*Trimont Mfg. Co., Boston.....	9
V	
Vapor Heating Co., Philadelphia.....	--
Vogel Co., Jos. A., Wilmington, Del.....	3
W	
*Walworth Mfg. Co., Boston.....	--
†Weekes & Son Co., John, Watertown, N. Y.....	8
*Wilks Mfg. Co., S. Chicago.....	--
†Williams & Co., J. H., Brooklyn.....	--
*Wolff Mfg. Co., L., Chicago.....	--
Wyckoff & Son Co., A., Elmira, N. Y.....	18
Wyco Products Co., Springfield, Mass.....	16

Kindly quote "Domestic Engineering" in writing advertisers.



With Bar Hinge

Over a half century's experience as manufacturers of **QUALITY** Wood-work places us in the front ranks in the making of

## HIGHEST QUALITY CLOSET SEATS AND TANKS

If you are not familiar with the **SPIES LINE** it will pay you to investigate.

The **SPIES SEAT** is so constructed that it cannot warp, split or come apart. All joints tongued and grooved and held together firmly by round dowel pins.

## Strongest Seat on the Market

Special features of **SPIES TANKS** are:

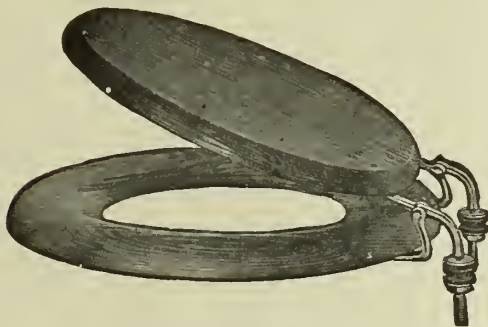
Improved locked joint.

Free expansion and contraction of copper.

No condensation.

We are in position to make prompt shipments.

Write today for literature and interesting prices.



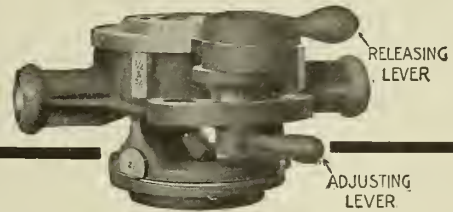
With Regular Hinge

**Spies Manufacturing Co., Ltd.**  
Abingdon, Ill.

## Six sizes in one tool

$\frac{1}{4}$  in.  $\frac{3}{8}$  in.  $\frac{1}{2}$  in.  $\frac{3}{4}$  in. 1 in.  $1\frac{1}{4}$  in.

**Oster  
Bulldog  
No. 102**



**A wide range  
easy-operating  
economical tool**

Here is a tool with an equipment that fits your demand for an all-around die-stock that must be more convenient and easier to adjust than ordinary stocks, and yet cover a wider range of sizes. Over and above these features the low cost of the up-keep of the

## OSTER BULLDOG No. 102 DIE STOCK

makes it the tool for your purpose. The dies are opened and closed by one movement of the hand and are held in position by a positive lever lock. They are changed easily and in less time than usually necessary. Extra dies are inexpensive, while old dies are re-cut at the factory at a fraction of the original cost.

## THE FIVE BIG FEATURES

of this stock: 1. **Lever-locking Dies**; 2. **Self-locking Guides**; 3. **No Resetting**; 4. **No loose bushings**; 5. **No breakable small parts**—are taken up in detail and fully illustrated in the interesting and complete booklet, "The Bulldog Tale," shown below. Six different photographs of the stock and its parts make it easy to understand. If you wish also our complete catalog 26-A, covering our full line of hand, belt, and motor tools, mark the square on the coupon.

**This  
Booklet  
Free**

**The Oster Mfg. Co.**

2160 E. 61st St. Cleveland, O.

The  
Oster  
Trademark



Please send me free "The Bulldog Tale." I am especially interested in a Tool for sizes .....to..... Please send me

Name .....

Address .....

City .....

State .....(2160)

Kindly quote "Domestic Engineering" in writing advertisers.



# "Domestic Engineering" Buyers' Directory

(See Page 68 for Addresses of Advertisers.)

- Acetylene Generators.**  
Ideal Epworth Acetylene Co.
- Air Cooling Systems.**  
Kauffman Heating & Engineering Co.  
Thomas & Smith, Inc.
- Babbitt Metal.**  
Pittsburgh Brass Mfg. Co.  
Raymond Lead Co.
- Balls for Flush Tanks, Fuller Balls, Etc.**  
Bell (Andrew), Estate of.  
Pfau Mfg. Co.  
Rome Sanitary Co.
- Basins, Catch, Cast-Iron.**  
Compound Injector & Specialty Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Wolff (L.) Mfg. Co.
- Baths.**  
Cahill Iron Works.  
Iron City Sanitary Mfg. Co.  
Kohler (J. M.) Sons Co.  
Trenton Potteries Co.
- Benders, Pipe.**  
Kellogg-Mackay Co.  
McGuire, L. C.  
Mueller (H.) Mfg. Co.
- Boiler Stands.**  
Sterling Specialty Co.
- Boilers, Firebox.**  
Herbert Boiler Co.
- Boilers, Heating, Hot Water.**  
Anderson-McCutchen Co.  
Gurney Heater Mfg. Co.  
Illinois Malleable Iron Co.  
International Heater Co.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Kroeschell Bros. Co.  
Lord & Burnham Co.  
Milwaukee Heat Generator Co.  
Prudential Heating Co.  
Scientific Heater Co.  
Shirley Radiator & Foundry Co.  
Wilks (S.) Mfg. Co.
- Boilers, Heating, Steam.**  
Illinois Malleable Iron Co.  
International Heater Co.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Kroeschell Bros. Co.  
Lord & Burnham Co.  
Prudential Heating Co.  
Scientific Heater Co.  
Shirley Radiator & Foundry Co.  
Thatcher Furnace Co.  
Wilks (S.) Mfg. Co.
- Boilers, Range.**  
Badger (E. B.) & Sons Co.  
Gerstein Bros. & Cooper.  
Hayes Mfg. Co.  
Scaife (Wm. B.) & Sons Co.
- Bowls, Water Closet.**  
Kohler (J. M.) Sons Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Sanitary Mfg. Co.  
Trenton Potteries Co.
- Brackets, Expansion Tank.**  
Norman (C. Erwin) & Co.
- Brackets, Lavatory.**  
Chicago Faucet Co.  
Iron City Sanitary Mfg. Co.  
Kellogg-Mackay Co.  
Kohler (J. M.) Sons Co.  
Parker (Chas.) Co.  
Perkes (Chas.), Estate of.  
Street & Kent Mfg. Co.  
Trenton Potteries Co.
- Brackets, Sink.**  
Campbell Mfg. Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Kohler (J. M.) Sons Co.  
Parker (Chas.) Co.  
Trenton Potteries Co.
- Branches, Y and Double Y.**  
Walworth Mfg. Co.
- Brass Goods, Gas.**  
Central Brass Mfg. Co.  
Detroit Brass Works.  
Federal-Huber Co.  
International Heater Co.  
Jarecki Mfg. Co.  
Mueller (H.) Mfg. Co.  
Perkes (Chas.), Estate of.  
Prier Brass Mfg. Co.  
Wolff (L.) Mfg. Co.
- Brass Goods, Plumbers.**  
Burlington Brass Works.  
Central Brass Mfg. Co.  
Chicago Faucet Co.  
Cleveland Brass Mfg. Co.  
Monarch Brass Co.  
Mueller Mfg. Co.  
Nopack Brass Mfg. Co.  
Prier Brass Mfg. Co.  
Richter Co.  
Rickersberg Brass Co.
- Brass Goods, Steam.**  
Central Brass Mfg. Co.  
Detroit Brass Works.  
Detroit Lubricator Co.  
Jarecki Mfg. Co.  
Kennedy Valve Mfg. Co.  
Perkes (Chas.), Estate of.  
Richter Co.  
Rickersberg Brass Co., The.
- Brass Goods, Water.**  
Burlington Brass Works.  
Central Brass Mfg. Co.  
Detroit Brass Works.  
Federal-Huber Co.  
Jarecki Mfg. Co.  
Kennedy Valve Mfg. Co.  
Monarch Brass Co.  
Mueller (H.) Mfg. Co.  
Perkes (Chas.), Estate of.  
Richter Co.  
Rickersberg Brass Co., The.  
Savill (Thomas) & Sons.  
Street & Kent Mfg. Co.  
Trenton Brass & Machine Co.  
Wolff (L.) Mfg. Co.
- Brazing Fires, Gasoline and Kerosene.**  
Globe Gas Light Co.
- Burners, Garbage.**  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Wilks (S.) Mfg. Co.
- Burners, Gas, for Heating Boilers.**  
Standard Heating & Radiator Co.
- Bushings, Radiator.**  
Neuman-Warnock Co.
- Calking Tools.**  
Mueller (H.) Mfg. Co.
- Catalog, Compiling and Publishing.**  
Donnelley (R. R.) & Sons Co.  
New Werner Co.
- Cellar Drainers.**  
Thomas & Smith, Inc.  
Chicago Pump Co.
- Cesspools, Brass.**  
Street & Kent Mfg. Co.
- Cesspools, Cast-Iron.**  
Estabrook's (R.) Sons.
- Circulators.**  
American Auxiliary Heating Co.  
Belknap Mfg. Co.  
Cripps (A. G.) Mfg. Co.
- Clamps, Beam.**  
H. & H. Bender & Hanger Co.  
Norman (C. Erwin) & Co.
- Cleaners, Waste Pipe.**  
Starbuck (R. M.) & Sons.
- Cleaning Compounds, Water Closet.**  
Hygienic Products Co.
- Cleanouts, Cast-Iron.**  
Barrett Mfg. Co.  
Campbell Mfg. Co.  
Compound Injector & Specialty Co.
- Clocks, Marine and Engine Room.**  
Marsh (Jas. P.) & Co.
- Closet Bends.**  
Compound Injector & Specialty Co.  
Rice (Ed. J.) Mfg. Co.
- Cocks, Ball.**  
Boston Brass Co.  
Frost Mfg. Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Knott Mfg. Co.  
Morency-Van Buren Mfg. Co.  
Noiseless Float Valve Mfg. Co.  
Nye Tool & Machine Works.  
Peerless Selling Co.  
Sanitary Mfg. Co.  
Walworth Mfg. Co.
- Colls and Bends, Pipe.**  
Kellogg-Mackay Co.
- Cold Chisels.**  
Anderson (W. H.) Tool & Supply Co.  
Mueller (H.) Mfg. Co.
- Counters, Revolution.**  
Marsh (Jas. P.) & Co.
- Couplings, Lead Pipe.**  
Central Brass Mfg. Co.  
Kellogg-Mackay Co.  
Mueller (H.) Mfg. Co.  
Perkes (Chas.), Estate of.  
Richter Co.
- Couplings, Union.**  
Capitol Brass Works.
- Central Brass Mfg. Co.**  
Illinois Malleable Iron Co.  
Mueller (H.) Mfg. Co.  
Richter Co.  
Street & Kent Mfg. Co.
- Covering, Pipe and Boiler.**  
International Heater Co.  
Johns-Manville Co. (H. W.)  
Kellogg-Mackay Co.  
Norristown Magnesia & Asbestos Co.  
Wyckoff (A.) & Son Co.
- Coverings, Steam Pipe.**  
Wyckoff (A.) & Son Co.
- Curb Boxes.**  
Mueller (H.) Mfg. Co.  
Walworth Mfg. Co.
- Dies.**  
Armstrong Mfg. Co.  
Bignall & Keeler Mfg. Co.  
Borden Co.  
Curtis & Curtis Co.  
Hart Mfg. Co.  
Loew Mfg. Co.  
Nye Tool & Machine Works.  
Oster Mfg. Co.  
Toledo Pipe Threading Machine Co.
- Drains, Floor and Garage.**  
Compound Injector & Specialty Co.
- Drains, Refrigerator.**  
Compound Injector & Specialty Co.
- Drinking Fountains.**  
Central Brass Mfg. Co.  
Chicago Faucet Co.  
Ebinger (D. A.) Sanitary Mfg. Co.  
Federal-Huber Co.  
Kohler Co.  
Maddock's (Thos.) Sons Co.  
M. H. Foundry & Mfg. Co.  
Murdoch Mfg. & Supply Co.  
Trenton Potteries Co.
- Drum Traps and Clean-Outs.**  
Compound Injector & Specialty Co.
- Earthenware, Sanitary.**  
Eijer Co.  
Graham (Chas.) Chemical Potteries Co.  
Great Western Pottery Co.  
Maddock's (Thos.) Sons Co.  
New Jersey China Pottery Co.  
Trenton Potteries Co.
- Enameled-Iron Sanitary Ware.**  
Cahill Iron Works.  
Enameled Tank Co.  
Iron City Sanitary Mfg. Co.  
Kohler Co.  
Union Sanitary Mfg. Co.
- Engines, Gas and Gasoline.**  
Bremen Mfg. Co.  
Standard Pump & Engine Co.
- Ferrules.**  
Athol Pump Co.  
Campbell Mfg. Co.  
Central Brass Mfg. Co.  
Compound Injector & Specialty Co.  
Illinois Malleable Iron Co.  
King Mfg. Co.  
Mueller (H.) Mfg. Co.  
Perkes (Chas.), Estate of.  
Raymond Lead Co.  
Rice, Edw. J.  
Street & Kent Mfg. Co.
- Filters, Water.**  
Scaife (Wm. B.) & Sons Co.
- Fittings, Bath Supply & Waste.**  
Central Brass Mfg. Co.  
Detroit Sanitary Supply Co.  
Federal-Huber Co.  
Monarch Brass Co.  
Mueller (H.) Mfg. Co.  
Street & Kent Mfg. Co.
- Fittings, Brass.**  
Barrett Mfg. Co.  
Boston Brass Co.  
Central Brass Mfg. Co.  
Detroit Sanitary Supply Co.  
Federal-Huber Co.  
Frost Mfg. Co.  
Mueller (H.) Mfg. Co.  
Perkes (Chas.) Estate of.  
Pittsburgh Brass Mfg. Co.  
Street & Kent Mfg. Co.
- Fittings, Cleanout.**  
Campbell Mfg. Co.  
Compound Injector & Specialty Co.  
Detroit Sanitary Supply Co.  
Estabrook's (R.) Sons.
- Fittings, Drainage.**  
Barrett Mfg. Co.  
Estabrook's (R.) Sons Co.  
Illinois Malleable Iron Co.
- Fittings, Hot Water, Etc.**  
American District Steam Co.  
Illinois Malleable Iron Co.  
Honeywell Heating Specialty Co.
- Fittings, Malleable Iron.**  
Illinois Malleable Iron Co.
- Fittings, Water Closet.**  
Federal-Huber Co.  
Frost Mfg. Co.  
Street & Kent Mfg. Co.
- Flanges, Floor.**  
Beaton & Cadwell Mfg. Co.  
Beaton & Corbin Mfg. Co.
- Flanges, Roof.**  
Bullard Specialty Co.
- Floats, Copper.**  
Ayling & Reichert Co.  
Berger Bros. Co.  
Boston Brass Co.  
Detroit Metal Spinning Co.  
Federal-Huber Co.  
Frost Mfg. Co.  
Monarch Brass Co.  
Peerless Selling Co.  
Rome Sanitary Co.
- Floor and Ceiling Plates.**  
Beaton & Cadwell Mfg. Co.  
Beaton & Corbin Mfg. Co.  
Penn Engineering Co.
- Foot-Rests.**  
Jennison Co.
- Force-Pumps.**  
Perkes (Chas.), Estate of.
- Fountains, Drinking.**  
Barrett (Jas.) Mfg. Co.  
Chicago Faucet Co.  
Federal-Huber Co.  
Illinois Malleable Iron Co.  
Kohler Co.  
Maddock's (Thos.) Sons Co.  
Trenton Potteries Co.
- Furnaces.**  
International Heater Co.  
Scientific Heater Co.
- Furnaces, Melting and Soldering.**  
Berger Bros. Co.  
Double Blast Mfg. Co.  
Kemp Mfg. Co.  
Mueller (H.) Mfg. Co.
- Gages, Pressure-Indicating.**  
Marsh (Jas. P.) & Co.  
National Steam Specialty Co.
- Gages, Pressure-Recording.**  
Marsh (Jas. P.) & Co.
- Gages, Steam.**  
Capitol Brass Works.  
Marsh (Jas. P.) & Co.  
National Steam Specialty Co.
- Gages, Water.**  
Belknap Mfg. Co.  
Capitol Brass Works.  
Detroit Brass Works.  
Detroit Lubricator Co.  
National Steam Specialty Co.  
Ohio Brass Co.  
Penn. Engineering Co.
- Garbage Burners.**  
Illinois Malleable Iron Co.  
Kewanee Boiler Co.  
Wilks (S.) Mfg. Co.
- Gaskets, Asbestos, Copper, Leather or Rubber.**  
Johns-Manville Co. (H. W.)  
Norristown Magnesia & Asbestos Co.
- Gas Machines for Lighting and Cooking.**  
Detroit Heating & Lighting Co.
- Generators, Heat.**  
Belknap Mfg. Co.  
Honeywell Heating Specialty Co.  
Kellogg-Mackay Co.  
Milwaukee Heat Generator Co.
- Hangers, Pipe.**  
Beaton & Corbin Mfg. Co.  
Berger Bros. Co.  
Donovan, D. A.  
Illinois Malleable Iron Co.  
Norman (C. Erwin) & Co.  
Penn. Engineering Co.
- Heaters, Auxiliary, for Warm Air Furnaces.**  
Anderson-McCutchen Co.  
Kellogg-Mackay Co.  
Scientific Heater Co.
- Heaters, Garage.**  
Scientific Heater Co.
- Heaters, Laundry.**  
Anderson-McCutchen Co.  
Gurney Heater Mfg. Co.  
Illinois Malleable Iron Co.

Kindly quote "Domestic Engineering" in writing advertisers.

The Increasing Demand for

# **PRIER BRASS GOODS**



Factory No. 1

indicates their great popularity among the plumbing trade.

To supply this constantly growing demand and to insure our patrons

## ***Efficient Service***

we have taken over the plant formerly operated by the Central Brass Works, of Kansas City.

We now operate two of the most modernly equipped plants in the country, well adapted for the manufacture of Plumbers' Brass Goods.

We make and carry in stock at all times, a complete line of

## ***Prier Compression and Quick Compression Faucets Standard Self-Closing Work, Drains, Traps, Etc. Sieben Drains and Traps***

The steady and rapid growth of our business is due to the confidence we have established among our customers and the reputation we have gained for manufacturing only *highest quality* goods and for giving every one a square deal.

Prier Brass Goods have been installed and are working successfully in many of the largest and most prominent buildings throughout the country.

With enlarged quarters and perfect shipping facilities, we are in a position to give you the right kind of service.



Factory No. 2

*Our Complete Catalog should be in the hands of every plumber and jobber. Yours for the asking.*

# **PRIER BRASS MANUFACTURING COMPANY**

**KANSAS CITY, MISSOURI**



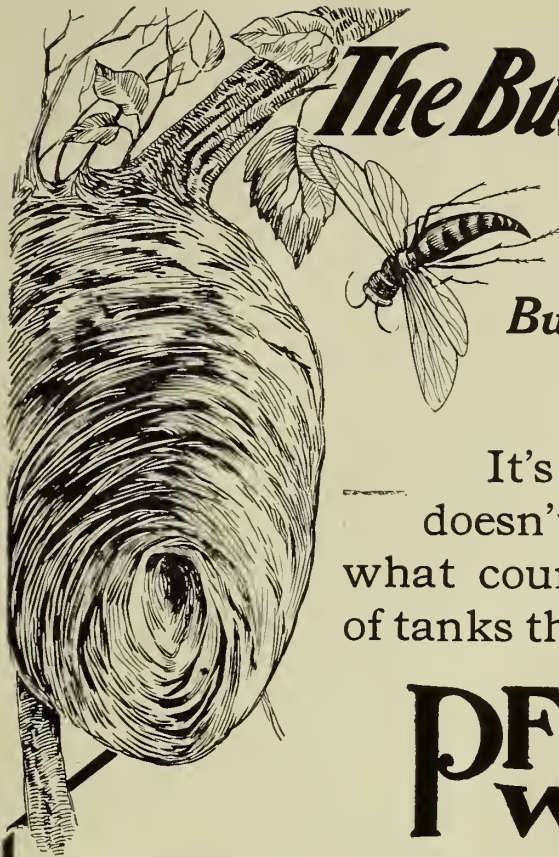
# "Domestic Engineering" Buyers' Directory—Continued

(See Page 68 for Addresses of Advertisers.)

- Kellogg-Mackay Co.  
Shirley Radiator & Fdry. Co.
- Heaters, Range Boiler.**  
Anderson-McCutchen Co.  
Humphrey Co.  
Kellogg-Mackay Co.  
Wilks (S.) Mfg. Co.
- Heaters, Tank.**  
Anderson-McCutchen Co.  
Gurney Heater Mfg. Co.  
Humphrey Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Lord & Burnham Co.  
Wilks (S.) Mfg. Co.
- Heaters, Water, Automatic.**  
Hoffman Heater Co.  
Humphrey Co.
- Heaters, Water Gas.**  
Humphrey Co.
- Heating Systems.**  
American District Steam Co.  
Dunham (C. A.) Co.  
Illinois Engineering Co.  
Marsh (Jas. P.) & Co.  
Moline Vacuum Vapor Heating Co.  
Mouat-Squires Co.  
National Steam Specialty Co.  
Trane Co., The.  
Vapor Heating Co.
- Hopper, Sterilizing.**  
Badger (E. B.) & Sons Co.
- Hydrants.**  
Federal-Huber Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Kemp (C. M.) Mfg. Co.  
Kennedy Valve Mfg. Co.  
Mueller (H.) Mfg. Co.  
Murdoch Mfg. & Supply Co.
- Injectors.**  
Compound Injector & Specialty Co.
- Injectors, Compound.**  
Compound Injector & Specialty Co.
- Instantaneous Bath Water-Heaters.**  
Humphrey Co.
- Laundry Trays.**  
Chicago Granite Mfg. Co.  
Elsmere Granite Co.  
Graham (Chas.) Chem. Pottery Works.  
Iron City Sanitary Mfg. Co.  
Kohler (J. M.) Sons Co.
- Laundry Tray Stands.**  
Bayley Co., J. L.
- Lavatories, Porcelain Enameled.**  
Cahill Iron Works.  
Iron City Sanitary Mfg. Co.  
Kohler (J. M.) Sons Co.  
Union Sanitary Mfg. Co.
- Lavatories, Vitreous China.**  
Eljer Co.  
Great Western Pottery Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Trenton Potteries Co.
- Lead for Plumbers.**  
Raymond Lead Co.  
United Lead Co.
- Lead Couplings.**  
Central Brass Mfg. Co.  
Mueller (H.) Mfg. Co.
- Lead Rope.**  
Raymond Lead Co.
- Legs, Laundry Tray.**  
Cahill Iron Works.  
Illinois Malleable Iron Co.  
Kohler's (J. M.) Sons Co.  
Maddock's (Thos.) Sons Co.  
Trenton Potteries Co.
- Legs, Sink.**  
Cahill Iron Works.  
Illinois Malleable Iron Co.  
Kohler's (J. M.) Sons Co.  
Maddock's (Thos.) Sons Co.  
Trenton Potteries Co.
- Lubricants.**  
Dixon (Jos.) Crucible Co.
- Melting Furnaces, Gasoline and Kerosene.**  
Globe Gas Light Co.
- Mixers, Shower Baths.**  
Federal-Huber Co.  
Imperial Brass Mfg. Co.  
Robertshaw Mfg. Co.  
Street & Kent Mfg. Co.  
Wolff (L.) Mfg. Co.
- Packings.**  
Jenkins Bros.  
Johns-Manville Co. (H. W.)  
Smooth-On Mfg. Co.
- Paste, Pipe Joint.**  
Dixon (Jos.) Crucible Co.  
Kellogg-Mackay Co.
- Smooth-On Mfg. Co.**
- Pipe and Fittings, Cast-Iron, Sill.**  
Campbell Mfg. Co.
- Pipe-Conduits for Underground Steam Pipes.**  
American District Steam Co.  
Johns-Manville Co. (H. W.)  
Wyckoff (A.) & Sons Co.
- Pipe Hangers.**  
Illinois Malleable Iron Co.  
Johnson & Hager.  
Penn. Engineering Co.
- Pipe-Threading and Pipe-Cutting Machinery and All Necessary Supplies.**  
Armstrong Mfg. Co.  
Bignall & Keeler Mfg. Co.  
Borden Co.  
Curtis & Curtis Co.  
Hart Mfg. Co.  
Loew Mfg. Co.  
Nye Tool & Machine Works.  
Oster Mfg. Co.  
Saunders (D.) Sons, Inc.  
Strickler (W. W.) & Bros.  
Toledo Pipe-Threading Machine Co.  
Trimont Mfg. Co.  
Walworth Mfg. Co.
- Pipe Hooks and Straps.**  
Berger Bros. Co.
- Pipe Straps (Galvanized).**  
Loew Mfg. Co.
- Pipe Vise Stand, Folding.**  
Strand Heater & Mfg. Co.
- Pumps, Air and Water.**  
Deming Co.  
Thomas & Smith, Inc.
- Pumps, Bilge.**  
Chicago Pump Co.
- Pumps, Electric Condensation.**  
Chicago Pump Co.  
Thomas & Smith, Inc.
- Pumps, Force.**  
Deming Co.  
Leader Iron Works.  
Perkes (Chas.), Estate of.  
Standard Pump & Engine Co.  
Thomas & Smith, Inc.
- Pumps, House.**  
Chicago Pump Co.  
Thomas & Smith, Inc.
- Pumps, Sewage.**  
Chicago Pump Co.  
Thomas & Smith, Inc.
- Pumps, Vacuum.**  
American Steam Pump Co.  
Automatic Vacuum Pump Co.  
Deming Co.  
Fischer-Sweeney Bronze Co.  
Illinois Engineering Co.  
Kauffman Heating & Engineering Co.
- Pyrometers.**  
Marsh (Jas. P.) & Co.
- Radiators.**  
Gurney Heater Mfg. Co.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Logansport Radiator Equipment Co.  
Shirley Radiator & Foundry Co.
- Radiator Fittings.**  
Youza Fitting Co.
- Radiator-Shields.**  
Kauffman Heating & Engineering Co.
- Radiator Valves.**  
Ohio Brass Co.
- Range-Bollers.**  
Badger (E. B.) & Sons Co.  
Gerstein Bros. & Cooper.  
Hayes Mfg. Co.  
Scaife (Wm. B.) & Sons Co.
- Range-Boller, Copper.**  
Badger (E. B.) & Sons Co.  
Gerstein Bros. & Cooper.  
Hayes Mfg. Co.  
Trager (John) Steam Copper Works.
- Regulators, Hot Water.**  
American Thermostat Co.  
Foster Engineering Co.  
Honeywell Heating Specialty Co.
- Regulators, Temperature.**  
Dahl Mfg. & Sales Co.  
Johnson Service Co.  
Minneapolis Heat Regulator Co.  
Honeywell Heating Specialty Co.  
Illinois Malleable Iron Co.
- Roof Flanges.**  
Bullard Specialty Co.
- Rubber Goods, Plumbing.**  
Canfield (H. O.) Co.
- Mechanical Rubber Co.**
- Seal-Removing Compound.**  
Compound Injector & Specialty Co.
- Seats, Water Closet.**  
Church Mfg. Co. (C. F.)  
Emery, W. S.  
Federal-Huber Co.  
Findelsen & Kropf Mfg. Co.  
Johns-Manville Co. (H. W.)  
Never-Split Seat Co.  
Patterson (G. W.) Co.  
Peerless Selling Co.  
Pfau Mfg. Co.  
Spies Mfg. Co.  
Sanitary Mfg. Co.  
Sanitary Specialties Co.  
Trenton Potteries Co.  
Wyco Products Co.
- Sewage Disposal Tanks, Septic.**  
Andrews Heating Co.
- Sewage Ejectors.**  
Thomas & Smith, Inc.
- Sewer-Rods.**  
Mueller (H.) Mfg. Co.
- Sewer-Traps, Etc.**  
Barrett (James) Mfg. Co.  
Cudell, F. E.
- Shields, Radiator.**  
Kauffman Heating & Engineering Co.  
Kellogg-Mackay Co.
- Showers.**  
Imperial Brass Mfg. Co.  
Rome Sanitary Co.
- Shower Mixers.**  
Imperial Brass Mfg. Co.  
Robertshaw Mfg. Co.
- Sink Brackets.**  
Campbell Mfg. Co.  
Jordan & Steele Mfg. Co.
- Sink Frames.**  
Jordan & Steele Mfg. Co.
- Sinks, Cast-Iron.**  
Cahill Iron Works.  
Kohler (J. M.) Sons Co.  
Union Sanitary Mfg. Co.
- Sinks, Copper.**  
Badger (E. B.) & Sons Co.
- Sinks, Earthenware.**  
Great Western Pottery Co.  
Maddock's (Thos.) Sons Co.  
Trenton Potteries Co.
- Sinks, German Silver.**  
Badger (E. B.) & Sons Co.  
Wolff (L.) Mfg. Co.
- Sinks, Porcelain.**  
Graham (Chas.) Chem. Pottery Co.  
Trenton Potteries Co.
- Sinks, Porcelain Enameled.**  
Cahill Iron Works.  
Iron City Sanitary Mfg. Co.  
Kohler (J. M.) Sons Co.  
Union Sanitary Mfg. Co.
- Sinks, Slate.**  
Wolff (L.) Mfg. Co.
- Sinks, Slop.**  
Maddock's (Thos.) Sons Co.  
Trenton Potteries Co.
- Stand and Coupling, Combination Boller.**  
Sterling Specialty Co.
- Stocks and Dies.**  
Armstrong Mfg. Co.  
Borden Co.  
Curtis & Curtis Co.  
Hart Mfg. Co.  
Keystone Die Stock Co.  
Loew Mfg. Co.  
Nye Tool & Machine Works.  
Oster Mfg. Co.  
Saunders (D.) Sons, Inc.  
Toledo Pipe Threading Machine Co.
- Tank Floats.**  
Ayling & Reichert Co.  
Frost Mfg. Co.
- Tanks, Expansion.**  
Air-Tight Steel Tank Co.  
Gurney Heater Mfg. Co.  
International Heater Co.  
Kellogg-Mackay Co.  
Lord & Burnham Co.  
Penn. Engineering Co.  
Scaife (Wm. B.) & Sons Co.  
Wilks (S.) Mfg. Co.
- Tanks, Hot-Water.**  
Leader Iron Works.  
Kewanee Boiler Co.  
Scaife (Wm. B.) & Sons Co.  
Wilks (S.) Mfg. Co.
- Tanks, Storage.**  
Air-Tight Steel Tank Co.  
Berger Bros. Co.  
Gerstein Bros. & Cooper.  
Hamburg Boiler Works.  
Kellogg-Mackay Co.  
Kewanee Boiler Co.  
Leader Iron Works.  
Lord & Burnham Co.  
Scaife (Wm. B.) & Sons Co.  
Wilks (S.) Mfg. Co.
- Tanks, Water Closet, Copper.**  
Pfau Mfg. Co.
- Tanks, Closet, Porcelain Enameled.**  
Cahill Iron Works.  
Enameled Tank Co.  
Iron City Sanitary Mfg. Co.  
Kohler (J. M.) Sons Co.  
Sanitary Mfg. Co.
- Tanks, Closet, Seat Action.**  
Eljer Co.  
Kellogg-Mackay Co.  
Kohler (J. M.) Sons Co.  
Peerless Selling Co.  
Sanitary Mfg. Co.
- Tanks, Closet, Vitreous China.**  
Eljer Co.  
Great Western Pottery Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Sanitary Mfg. Co.  
Trenton Potteries Co.
- Tanks, Wood, Water Closet.**  
Black, F. A.  
Galaro Co.  
Knott Mfg. Co.  
Peerless Selling Co.  
Pfau Mfg. Co.  
Spies Mfg. Co.
- Tapping Machines.**  
Mueller (H.) Mfg. Co.
- Thermostats.**  
American Thermostat Co.  
Jewell Mfg. Co.  
Johnson Service Co.  
Minneapolis Heat Regulator Co.  
Robertshaw Mfg. Co.
- Thermometers.**  
American Specialty Co.  
Marsh (Jas. P.) & Co.  
National Steam Specialty Co.
- Tool Bags.**  
Excelsior Bag & Mfg. Co.
- Tools, Plumbers' and Steamfitters'.**  
Anderson (W. H.) Tool & Supply Co.  
Armstrong Mfg. Co.  
Borden Co.  
Hart Mfg. Co.  
Kellogg-Mackay Co.  
Mueller (H.) Mfg. Co.  
Nye Tool & Machine Works.  
Oster Mfg. Co.  
Williams (J. H.) & Co.
- Torches, Gasoline.**  
Double Blast Mfg. Co.  
Globe Gas Light Co.
- Torches, Kerosene.**  
Globe Gas Light Co.
- Traps, Back Water.**  
Barrett Mfg. Co.  
Cudell, F. E.  
Federal-Huber Co.  
Illinois Malleable Iron Co.  
Kennedy Valve Mfg. Co.  
Monarch Brass Co.
- Traps, Brass.**  
A. D. Manufacturing Co.  
Central Brass Mfg. Co.  
Compound Injector & Specialty Co.  
Detroit Sanitary Supply Co.  
Frost Mfg. Co.  
Monarch Brass Co.  
Street & Kent Mfg. Co.
- Traps, Catch Basins.**  
Compound Injector & Specialty Co.  
Detroit Sanitary Supply Co.  
Estabrook's (R.) Sons.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.
- Traps, Grease.**  
Compound Injector & Specialty Co.  
Estabrook's (R.) Sons.  
Maddock's (Thos.) Sons Co.  
Raymond eLad Co.  
Street & Kent Mfg. Co.
- Traps, Lead.**  
Monarch Brass Co.  
Raymond Lead Co.
- Traps, Non-Syphon.**  
Buckeye Brass & Mfg. Co.
- Traps, Radiator and Steam-Traps.**  
Acme Engineering Co.  
American District Steam Co.  
Consolidated Engineering Co.  
Dunham (C. A.) & Co.  
Illinois Engineering Co.  
Marsh (Jas. P.) & Co.  
National Steam Specialty Co.
- Traps, Refrigerator.**  
Central Brass Mfg. Co.  
Federal-Huber Co.
- Traps, Sink.**  
Central Brass Mfg. Co.  
Federal-Huber Co.  
Frost Mfg. Co.  
Monarch Brass Co.  
Raymond Lead Co.

Kindly quote "Domestic Engineering" in writing advertisers.





# *The Business End of a Hornet is not Large*

*But if you doubt its efficiency—  
Start something.*

It's the same with toilet tanks—size doesn't amount to much—efficiency is what counts. You can buy any number of tanks that are larger and noisier than the

## **PFAU** *White-Copper* **TANK**

But you can't buy any tank of any size that will do more work than this one. You can't buy a tank that will flush out a closet bowl more perfectly or with so little noise as the Pfau White-Copper Tank. You can't buy a tank that will give such permanent satisfaction, that will look so well and that embodies so many exclusive points of superiority.

Of course the man who makes or handles old fashioned tanks of cast metal, wood or china can't be expected to grow enthusiastic over this little beauty. He has felt the sting of its competition, and he *knows*.

Write for booklet.



**The Pfau Manufacturing Company**  
Cincinnati



# "Domestic Engineering" Buyers' Directory—Continued

(See Page 68 for Addresses of Advertisers.)

- Trucks, Radiator.**  
Buell Bros.
- Unions, Brass.**  
Mueller (H.) Mfg. Co.  
Perkes (Chas.), Estate of.  
Pittsburgh Brass Mfg. Co.  
Street & Kent Mfg. Co.
- Urinals.**  
Cahill Iron Works.  
Ebinger (D. A.) Sanitary Mfg. Co.  
Eljer Co.  
Great Western Pottery Co.  
Kohler (J. M.) Sons Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Trenton Potteries Co.
- Urinals, Cast-Iron.**  
Cahill Iron Works.  
Kohler (J. M.) Sons Co.
- Urinals, Porcelain.**  
Great Western Pottery Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Trenton Potteries Co.
- Urinals, Ventilated.**  
Ebinger (D. A.) Sanitary Mfg. Co.
- Vacuum-Heating Systems.**  
Consolidated Engineering Co.  
Dunham Co., C. A.  
Iroquois Engineering Co.  
Kaufman Heating & Engineering Co.  
Leonhard, Frederick.  
Marsh (Jas. P.) & Co.
- Valves, Air.**  
Consolidated Engineering Co.  
Crawford Co.  
Illinois Engineering Co.  
Kellogg-Mackay Co.  
Lord & Burnham Co.  
Marsh Valve Co.  
National Steam Specialty Co.  
Penn. Engineering Co.  
Perkes (Chas.), Estate of.
- Valves, Air Relief.**  
Marsh (Jas. P.) & Co.
- Valves, Back Water.**  
Compound Injector & Specialty Co.
- Valves, Float.**  
Belknap Mfg. Co.  
Noiseless Float Valve Mfg. Co.  
Perkes (Chas.), Estate of.
- Valves, Gate.**  
Capitol Brass Works.  
Detroit Brass Works.  
Detroit Lubricator Co.  
Kennedy Valve Mfg. Co.  
Ohio Brass Co.
- Valves, Gate, Angle.**  
Detroit Brass Works.  
Kellogg-Mackay Co.  
Lord & Burnham Co.
- Valves, Gate, Iron Body.**  
American District Steam Co.  
Kennedy Valve Mfg. Co.  
Lord & Burnham Co.
- Valves, Globe.**  
Detroit Brass Works.  
Marsh Valve Co.  
Ohio Brass Co.
- Valves, Globe, Iron Body.**  
Kennedy Valve Mfg. Co.  
Lord & Burnham Co.
- Valves, Pressure Regulating.**  
Consolidated Engineering Co.  
Foster Engineering Co.  
Illinois Engineering Co.  
Johnson Service Co.  
Kellogg-Mackay Co.  
Mueller (H.) Mfg. Co.  
Ohio Brass Co.  
Ross Valve Mfg. Co.
- Valve, Radiator.**  
American District Steam Co.  
Capitol Brass Works.  
Consolidated Engineering Co.  
Davis (Louis N.) Co.  
Detroit Brass Works.  
Detroit Lubricator Co.  
Gurney Heater Mfg. Co.  
Honeywell Heating Specialty Co.  
Kellogg-Mackay Co.  
Kennedy Valve Mfg. Co.  
Kinsey & Mahler Co.  
Lavigne Mfg. Co.  
Lord & Burnham Co.  
Marsh Valve Co.  
Penn. Engineering Co.  
Perkes (Chas.), Estate of.  
Walworth Mfg. Co.
- Valves, Reducing.**  
Johnson Service Co.
- Valves, Shower.**  
Robertshaw Mfg. Co.
- Valves, Steam.**  
Capitol Brass Works.  
Central Brass Mfg. Co.  
Detroit Brass Works.  
Detroit Lubricator Co.  
Gurney Heater Mfg. Co.  
Kennedy Valve Mfg. Co.  
Kinsey & Mahler Co.  
Lord & Burnham Co.  
Perkes (Chas.), Estate of.
- Valves, Vacuum.**  
Acme Engineering Co.  
Consolidated Engineering Co.  
Foster Engineering Co.  
Illinois Engineering Co.  
Imperial Valve Co.  
Marsh (Jas. P.) & Co.  
Morgan-Clark System Co.  
Perkes (Chas.), Estate of.  
Walworth Mfg. Co.
- Valves, Water-Closet, Flushing.**  
Boston Brass Co.  
Frost Mfg. Co.
- Valves, Water-Closet, Flushometer Type.**  
Bowling (H. C.) Mfg. Co.  
Cleveland Flush Meter Co.  
Federal-Huber Co.  
Haas Co., Phillip.  
Sanitary Mfg. Co.
- Wolff (L.) Mfg. Co.**
- Ventilators.**  
Kaufman Heating & Engineering Co.
- Vapor Heating Systems.**  
Liquat Vapor Heating Co.  
Moline Vacuum-Vapor Heating Co.  
Vapor Heating Co.
- Vises, Pipe.**  
Armstrong Mfg. Co.  
Curtis & Curtis Co.  
Mark Mfg. Co.  
Nye Tool & Machine Works.  
Parker (Chas.) Co.  
Saunders' (D.) Sons, Inc.  
Toledo Pipe Threading Machine Co.  
Walworth Mfg. Co.  
Williams (J. H.) & Co.
- Vises, Push Nipple.**  
Peterson (H. L. E.) Mfg. Co.
- Vitreous-China Dressing Table.**  
Maddock's (Thos.) Sons Co.
- Vitreous-China Manicuring Table.**  
Maddock's (Thos.) Sons Co.
- Washers, Air.**  
Thomas & Smith, Inc.
- Washers, Leather, Paper, Asbestos, or Rubber.**  
Auburn Leather Goods Co.  
Bell (Andrew), Estate of.
- Wastes and Overflows.**  
A. D. Manufacturing Co.  
Central Brass Mfg. Co.  
Detroit Sanitary Supply Co.  
Mueller (H.) Mfg. Co.  
Rickersberg Brass Co., The.  
Street & Kent Mfg. Co.
- Waste-Pipe Couplings.**  
Stewart Mfg. Co.
- Water Closet Bends.**  
Rice (Edw. J.) Mfg. Co.
- Water Closet Brass Specialties.**  
Frost Mfg. Co.  
Morency-Van Buren Mfg. Co.  
Peerless Selling Co.
- Water-Closet Combinations.**  
Black, F. A.  
Eljer Co.  
Great Western Pottery Co.  
Ham (C. T.) Mfg. Co.  
Illinois Malleable Iron Co.  
Kellogg-Mackay Co.  
Kohler Co.  
Maddock's (Thos.) Sons Co.  
Peerless Selling Co.  
Perkes (Chas.), Estate of.  
Prau Mfg. Co.  
Pittsburgh Brass Mfg. Co.  
Sanitary Mfg. Co.  
Trenton Potteries Co.
- Water-Closet Combinations, Automatic Flushing.**  
Ebinger (D. A.) Sanitary Mfg. Co.  
Eljer Co.
- Federal-Huber Co.**  
Haas (Phillip) Co.  
Kellogg-Mackay Co.  
Kelly (Thos.) & Bro.  
Maddock's (Thos.) Sons Co.  
Perkes (Chas.), Estate of.  
Trenton Potteries Co.
- Water-Closet Combinations, Ventilated.**  
Ebinger (D. A.) Sanitary Mfg. Co.
- Water-Closets, Enameled Iron.**  
Iron City Sanitary Mfg. Co.  
Kelly (Thos.) & Bro.  
Kohler Co.  
Sanitary Mfg. Co.
- Water-Closet, Frost Proof.**  
Haas (Phillip) Co.  
Maddock's (Thos.) Sons Co.  
Pittsburgh Brass Mfg. Co.  
Vogel (Joseph A.) Co.
- Water-Heaters, Coal.**  
Gurney Heater Mfg. Co.  
Illinois Malleable Iron Co.  
International Heater Co.  
Kellogg-Mackay Co.  
Kemp (C. M.) Mfg. Co.  
Kewanee Boiler Co.  
Shirley Radiator & Foundry Co.  
Wilks (S.) Mfg. Co.
- Water-Heaters, Gas, Automatic.**  
Hoffman Heater Co.  
Humphrey Co.
- Water-Heaters, Gas, Instantaneous.**  
Humphrey Co.
- Water Heaters, Gas Range.**  
Humphrey Co.
- Water Main Tapping Machines.**  
Mueller (H.) Mfg. Co.
- Water Softening Compounds.**  
Compound Injector & Specialty Co.
- Water Supply Systems, Automatic.**  
Fairbanks, Morse & Co.  
Leader Iron Works.  
National Steel Tank & Mfg. Co.  
Scaife (Wm. B.) & Sons Co.  
Standard Pump & Engine Co.  
Thomas & Smith, Inc.
- Wiping Clamps.**  
Griffin Specialty Co.
- Woodwork, Plumbers'.**  
Never-Split Seat Co.  
Peerless Selling Co.  
Prau Mfg. Co.  
Spies Mfg. Co.  
Sanitary Mfg. Co.
- Wrenches, Pipe.**  
Armstrong Mfg. Co.  
Brock Wrench Mfg. Co.  
Gealy Wrench & Mfg. Co.  
Saunders' (D.) Sons, Inc.  
Trilmont Mfg. Co.  
Walworth Mfg. Co.  
Williams (J. H.) & Co.

## SHOWERS WITH NIEDECKEN MIXER

PATENTED



Write for  
Bulletin  
No. D. 5.

HOFFMANN & BILLINGS MFG. CO.  
MILWAUKEE

BALL COCK  
CUPS

BISS WASHERS

PACKINGS OF EVERY DESCRIPTION  
FOR THE  
**ALCOGO**  
PLUMBING TRADE

SEND  
SAMPLES

HYDRANT LEATHERS

FOR  
PRICES

AUBURN LEATHER GOODS CO.  
AUBURN, N.Y.

See Our Advertisement Next Week

## HOT WATER FOR DOMESTIC USE

A Complete Guide to the Methods of Supplying and Heating Water for Domestic Purposes, giving each step to be taken and explaining why it is done. This new book is now ready for delivery. 128 Pages Bound in Cloth. 50 cents postpaid.

DOMESTIC ENGINEERING, 445-447 Plymouth Court, CHICAGO

Kindly quote "Domestic Engineering" in writing advertisers.



# Have a Hobby and Be Happy

**If your craft is your hobby, so much the better. It is by special knowledge that the craftsman wins signal success. Book study is important to the acquirement of special knowledge.**

## A Practical Manual of Steam and Hot-Water Heating.

By E. R. Pierce. Authoritative treatment of the subject for the everyday steam and hot-water fitter. Brings forward fundamental principles by which conflicting tables are reduced to an easily understood and common working basis. Overthrows false ratings and creates a new era in heating values. Cloth,  $5\frac{1}{2} \times 8\frac{1}{2}$  in., 359 pp.; postpaid, \$2.50.

## Modern Plumbing Illustrated.

By R. M. Starbuck. 400 large quarto pages. Fully illustrated by fifty-five full pages of detailed engravings, which have been made specially for this book. The only thorough and practical work issued on the modern and most approved methods of plumbing construction. Illustrating and describing the drainage and ventilation of dwellings, apartments and public buildings, etc. The standard work for plumbers, architects, builders, property owners, and for boards of health and plumbing examiners. Adopted and used as a reference book by the United States government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal boards of health of the United States and Canada. Price \$4.

## Standard Practical Plumbing.

By R. M. Starbuck. 450 pages, 347 specially made illustrations. Of the three hundred and forty-seven illustrations contained in the book, one hundred of them are full-page illustrations. The illustrations all being drawn expressly for this work will show the most modern and best practice in plumbing construction. Price \$3.

## Roughing-In House Drains.

Edited by John K. Allen. A complete guide to roughing-in plumbing from the digging of the sewer to the finishing length of the house-drain. 88 illustrations; bound in boards;  $6\frac{1}{4} \times 4\frac{1}{4}$  in.; 184 pages; postpaid, 50 cents.

## Practical Steam and Hot-Water Heating and Ventilation.

By Alfred G. King. Octavo. 367 pages. Containing over 300 detailed illustrations. The larger part of them, having been made from original diagrams, specially drawn for the book. This book is the standard and latest work published on the subject and has been prepared for the use of all engaged in the business of steam, hot-water heating and ventilation. It is an original and exhaustive work. The most elaborate and complete work that has ever been published for the use of heating contractors, journeymen steam-fitters, steam-fitters' apprentices, architects and builders. Valuable data and tables used for estimating, installing and testing of steam and hot-water and ventilating apparatus are given. Price \$3.

## The Sanitary Sewerage of Buildings.

By Thomas S. Ainge. Comprehensive discussion of the subject profusely illustrated. Bound in cloth; 222 pages;  $5\frac{1}{4} \times 8$  in. Postpaid, \$1.50.

## Sanitation in the Modern Home.

By John K. Allen. Tells how to make a house sanitary from the sub-soll to the roof. Bound in cloth; 272 pages;  $5\frac{1}{4} \times 8$  in. Postpaid, \$2.

## Hot Water for Domestic Use.

How to install the different apparatus and systems for this purpose. Brimful of practical advice. Bound in cloth;  $4\frac{1}{4} \times 6\frac{1}{4}$  in.; 128 pages; postpaid, 50 cents.

## Tables for Calculating Sizes of Steam Pipes.

By Isaac Chalmovitch. Containing method of determining sizes of steam pipes for low pressure heating systems without laborious mathematical calculations. Bound in cloth,  $4\frac{1}{2} \times 6\frac{1}{2}$  in.; 47 pages; postpaid, \$2.

## Kitchen-Boiler Connections.

Describes how to connect range boilers and water-backs under various conditions. Bound in cloth;  $9\frac{1}{4} \times 6$  in.; 196 pages; 113 illustrations; postpaid, \$1.

## Air-Valves for Steam-Heating Systems.

By W. H. Wakeman. Tells how, why and where air valves should be used.  $5\frac{1}{4} \times 7\frac{1}{2}$  in.; 39 pages; postpaid, 25 cents.

## Making the Business Pay.

By John Burton. A retired successful plumber and steam-fitter's advice to men still in the business. Bound in cloth;  $5\frac{1}{2} \times 7\frac{1}{4}$  in.; 168 pages; postpaid, \$1.

## Heating and Ventilating Buildings.

By Prof. R. C. Carpenter, Cornell University. Describes the latest improvements in the art of heating and ventilation for the technical readers. Bound in cloth,  $9\frac{1}{4} \times 6$  in.; 562 pages; postpaid, \$4.

## A Manual of Technical Plumbing and Sanitary Science.

By S. Barlow Bennett, Consulting Sanitary Engineer. Treats of every branch of the subject in a clear and practical manner; especially adapted to the needs of those making a thorough study of sanitation and public health.  $9\frac{1}{2} \times 6$  in., 300 pages, over 400 diagrams and photographs, bound in cloth, postpaid, \$2.00.

## Mechanical Drawing for Plumbers.

By R. M. Starbuck. 132 pages. Illustrated with 150 specially-made engravings. This work is concise, comprehensive and practical, dealing simply and clearly with the subject of drawing such as the plumber needs in his work. Nothing will so help the plumber in estimating and in explaining work to customers and workmen as a knowledge of drawing, and to the workman it is of inestimable value if he is to rise above his position to positions of greater responsibility. Price \$1.50.

## Standard Heating Specifications and Contract Blanks.

For low pressure steam and hot-water heating apparatus offers a dignified legal form for specification proposal and contract for the general use of steam and hot-water fitters. Printed on linen paper;  $14 \times 8\frac{1}{2}$  in.; 4 pages. Price of either steam or hot-water or mixed blank, 50 copies, \$2.50.

## Dean's Steam-Fitter's Computation Book.

Tables for finding cubical contents of rooms and radiation required, also general information of interest to steam and hot-water fitters. Bound in flexible cloth;  $5 \times 7\frac{1}{2}$  in.; 90 pages; postpaid, \$2.50.

## Notes on Heating and Ventilation.

By Prof. John R. Allen, University of Michigan. Valuable handbook for steam-fitters and designers of heating systems. New Edition. Bound in cloth;  $5\frac{1}{2} \times 8\frac{3}{4}$  in.; 227 pages; postpaid, \$2.50.

## Principles and Practice of Plumbing.

By J. J. Cosgrove. A complete handbook on this subject. Fully illustrated. Bound in cloth; postpaid, \$3.

## Sewage Purification and Disposal.

By J. J. Cosgrove. An exhaustive and reliable work on this vital subject. Fully illustrated. Bound in cloth; postpaid, \$3.

## History of Sanitation.

By J. J. Cosgrove. History of the plumber's craft from the time of the primitive man up to our own day. 88 illustrations. Bound in cloth; postpaid, \$1.50.

## Wrought-Pipe Drainage Systems.

By J. J. Cosgrove. An invaluable aid to those who install iron pipe systems. Bound in cloth; 150 pages;  $5\frac{1}{4} \times 8\frac{1}{2}$  in.; postpaid, \$2.

## Plumbing Estimates and Contracts.

By J. J. Cosgrove. Contains much valuable information for the master plumber, pointing the way to conduct the business of plumbing in business-like manner. Bound in cloth; 210 pages;  $5\frac{1}{4} \times 8\frac{1}{2}$  in.; postpaid, \$3.

## Bookkeeping for the Plumber.

By George W. Ryan. Second Edition. A thorough and simple system of bookkeeping for the plumber. Contains much valuable information; fully illustrated. In paper cover; 58 pages;  $5 \times 8$  in.; postpaid, 25 cents.

## Practical Wrinkles for the Plumber.

By R. M. Starbuck. A collection of valuable and handy methods, devices and contrivances in plumbing. Bound in cloth; postpaid, \$1.

## Practical Hints on Joint Wiping.

A valuable book for beginners in plumbing, written by expert practical men. Bound in paper,  $7\frac{1}{4} \times 5\frac{1}{2}$  in.; 66 pages; postpaid, 25 cents.

## Sizes of Flow and Return Steam Mains.

By 30 leading heating engineers. Bound in boards;  $6\frac{1}{4} \times 4\frac{1}{4}$  in.; 96 pages; postpaid, 50 cents.

## Plumbing Plans and Specifications.

By J. J. Cosgrove. Tells how to indicate materials and fixtures on plumbing plans; how to prepare full and complete working plans and details; how to write a satisfactory specification; what plumbing work is required in different classes of buildings. Bound in cloth; 274 pages;  $5\frac{1}{4} \times 8\frac{1}{2}$  in.; postpaid, \$3.

## A Complete Guide to Testing Plumbing.


By John K. Allen. Gives methods of testing new and old work. 17 illustrations;  $7\frac{1}{2} \times 5\frac{1}{4}$  in.; 36 pages; postpaid, 25 cents.

**DOMESTIC ENGINEERING, 445-447 Plymouth Court, CHICAGO**

Kindly quote "Domestic Engineering" in writing advertisers.



## We Are Sincere

in our desire to assist you in selling the best SEAT that the World offers. 

A seat composed of four pieces of straight-grained, seasoned, kiln-dried, quarter-sawed hardwood which is joined together with Steel Bolts, Nuts and Washers. The joints are held permanently and the grain runs around the hole—not through it.

The **"NEVER SPLIT"** Closet Seat is the only one made that protects both you and your customers. Why? We only ask an opportunity of answering this question.

*Please ask us—just place a ? upon the back of a postal—we will do the rest.*

**NEVER SPLIT SEAT CO.**  
EVANSVILLE, IND., U.S.A.

The Engine with a Reputation that Helps you get Business

### Some of the special features of the BREMEN CALORIC ENGINE



Engine and Pressure Tank

Gives off no explosion or exhaust.  
Makes no more noise than a clock.  
Will furnish 40 lbs. pressure in a pneumatic tank, or elevate water 90 feet.

Most simple, economical and durable pump on the market. The price is right. Ask for booklet.

**THE BREMEN MANUFACTURING CO.**  
Bremen, Ohio, U. S. A.

### The Best Float Made

Double seamed—copper to copper.  
Five ply metal at seam.  
Cannot leak around spud.  
Made in following sizes:

4x5" Oval, 4½"  
Round, 5" Round,  
5" Round with flat side.



We also make zinc floats in same sizes.

*Write today for details*

**Detroit Metal Spinning Company**  
195 Monroe Ave., Detroit, Mich.

### Self-Closing Hydrants Are Usually a "Frost"

The "GENUINE" Murdock Self-Closing Hydrant has *never* been a frost.

#### **IT IS FROST PROOF**

Works under any regular working pressure.  
Heavy Phosphor Bronze Spring.  
Every hydrant thoroughly tested.

We never get one back—BUT you must see to it yourself, Mr. Plumber, that you get the "GENUINE," bearing the full name "Murdock" and our label.

**The Murdock Mfg. & Supply Co.**  
Cincinnati, Ohio



### Buckeye Non-Syphon Traps

are endorsed by leading sanitary engineers and master plumbers everywhere.  
Absolutely sanitary.

#### **Most Efficient Trap Made**

Polished and rough nickel plated.

We also manufacture adjustable P. & S. traps with or without cleanouts.

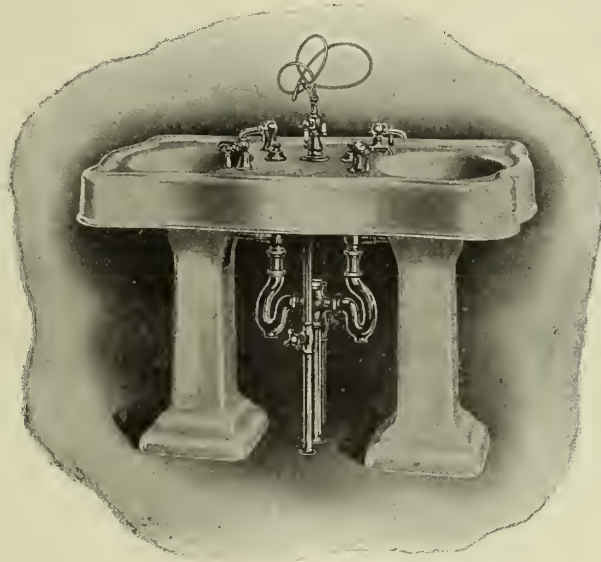
*Write for Catalog "A"*

**The Buckeye Brass & Mfg. Co.**  
Cleveland, Ohio





## A Popular Design



Barbers' Lavatory

Size 27" x 45"

**IRON CITY SANITARY  
MANUFACTURING CO.  
PITTSBURG, PA. U.S.A.**



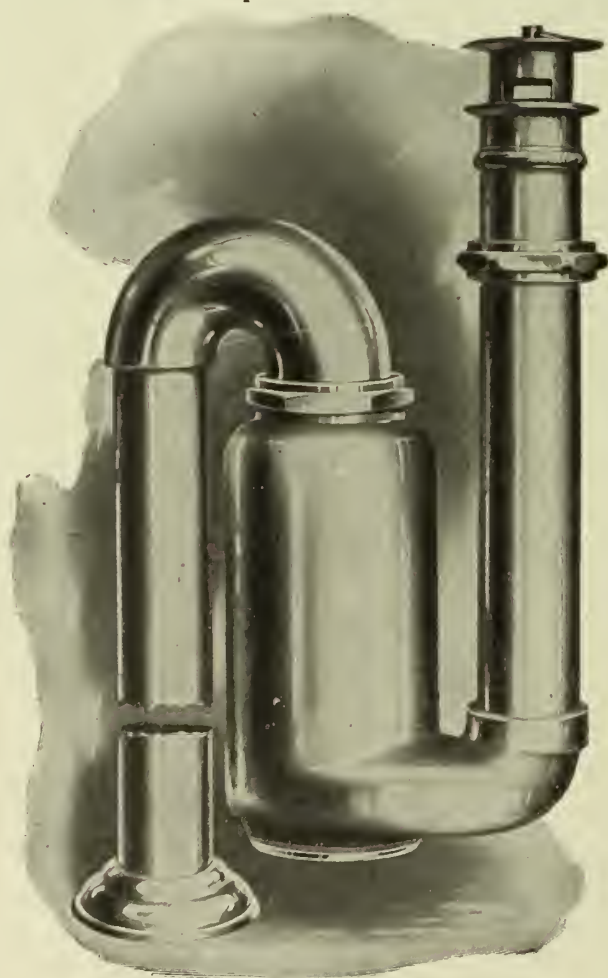
# When You Do Use An Anti-Syphon

Not only because it is reasonable in price, but because it is the **most sanitary, most efficient and best looking fixture** of its kind on the market.

Nothing has been spared in the building of this trap to make it absolutely the peer of all ANTI-SYPHON TRAPS.

We mention as a few of its features the following :

"The *Monarch*" Anti-Syphon and Resealing Brass Trap for Lavatories, etc.



*Patent Pending*

NO INSIDE COMPARTMENTS.

NO MECHANICAL SEALING FEATURES.

NO DEFLECTORS.

HAS GROUND JOINT OUTLET AT TOP ALLOWING WIDE SWING ADJUSTMENT.

HAS CLEAN-OUT AT BOTTOM ENTIRE DIAMETER OF DRUM.

TANGENTIAL INLET MAKING IT SELF-CLEANSING.

CAST P. O. PLUG OR SINK CONNECTION and LONG INLET TUBE.

MADE IN 1¼" and 1½" SIZES P. or S. and finished or rough nickel plated.

TESTED AND APPROVED BY LEADING CITIES.

DESIGNED TO MEET THE LATEST VIEWS ON MODERN SANITATION.

A HANDSOME FIXTURE AT A REASONABLE PRICE.

*Get our Booklet "D."*

## THE MONARCH BRASS

# Trap—Use the **MONARCH**

## Special Announcement

¶ We are pleased to inform the trade that we have now placed on the market **The Monarch Anti-Syphon Trap in Lead** which in **form, dimensions and special features** is identical with **The Monarch Anti-Syphon Brass Trap**.

¶ The Lead Trap is furnished **complete**. By this we mean that it requires **no piecing out** with lead pipe, either on **inlet** or **outlet**. The outlet is taken from the top, and instead of lead, is made up of a **Brass Ground Joint Elbow** rough nickel plated, into which is screwed a rough nickel plated **Brass Outlet Pipe**. This gives the lead trap the **same adjustable swinging feature** as the brass trap.

¶ The **Clean-out Screw** at bottom is **brass**, and is screwed into a **brass ring** sweated into the body. No chance of bending, or marring trap in taking off clean-out. No chance of bending or marring outlet pipe inasmuch as same is made of **brass**. Inlet pipe is furnished complete to fixture.

¶ Taking into consideration the **labor-saving features** of this trap, as well as its points of merit, you will find it the **most economical and best Anti-Syphon Lead Trap** on the market. Our Booklet "D," illustrating, listing and describing **Monarch Anti-Syphon Traps**, sent on request.



Monarch Anti-Syphon Lead Trap

# COMPANY, CLEVELAND



# DETROIT Combination Gas Machine

FOR LIGHTING AND COOKING

## Plumbers and Gasfitters

have increased their country and suburban trade immensely by taking up the sale of the **Detroit Combination Gas Machine** among farmers and others located beyond the gas and electric zones.

They make the cheapest

**Gas For Lighting—Gas For Cooking**

**Gas For Laundry—Power Purposes, Etc.**

These Plants have been recognized as the Standard for over 44 years. More than 20,000 in daily use



Summer Home of Mr. John Crosby  
Washburn-Crosby Milling Co.  
Breezy Point, Lake Minnetonka, Minn.  
Using Combination Gas Machine

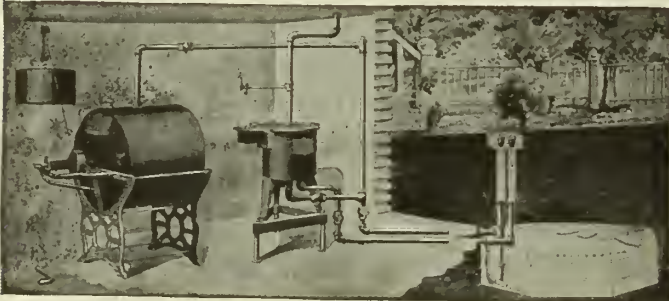
in Residences, Stores, Factories, Churches, Schools, Villages, and Hospitals requiring the most reliable service at cheapest costs.

Every sale means a **Big Profit** to the dealer and results in a satisfied customer who will tell his friends about this plant and they will eventually buy, so the **Sales and Your Profits Increase**. If you wish to reap a rich harvest, write today for complete information and dealers' terms.

## Detroit Heating & Lighting Co.

515 Wight St., Detroit, Michigan

Established 1868



## NOTES ON HEATING AND VENTILATION. By Prof. John R. Allen. Third Edition.

This book is a resume of lectures delivered to classes in heating and ventilation at the University of Michigan. It is written primarily for steamfitter and designer of heating systems. Reduced to as brief a form as possible, so that readers can readily find notes or data desired. Bound in cloth 5½x8¾ inches; 226 pp.; postpaid, \$2.50.

Address: DOMESTIC ENGINEERING, 445-447 Plymouth Court, Chicago

## What Do You Know About This?



That to obtain full value there is no difference in opinion, "where to get a really good sanitary trap"—the **CLEAN SWEEP** kind and the **CLEAN SWEEP** quality is the key to the situation. To be sure there is a little difference in price but the vastest difference is in satisfaction. Buy what is best, and for you and your client it wins. Traps in Brass and Lead. Used by the Government on its work.

## DETROIT SANITARY SUPPLY CO.

SOLE MANUFACTURERS

Second Ave. & Antoinette St.

Detroit, Michigan



Another building in which Peerless Closets are giving satisfactory service.

Like all other Peerless Products, the  
**Peerless Automatic Seat Action Closet**  
 is alone in its class.

The construction of the Peerless Seat Action Device is simplicity itself.

The phosphor bronze coil springs in the hinge posts furnish the power for operating.

By means of regulating screw, tension can be put on or left off at will by plumber when installing fixture.

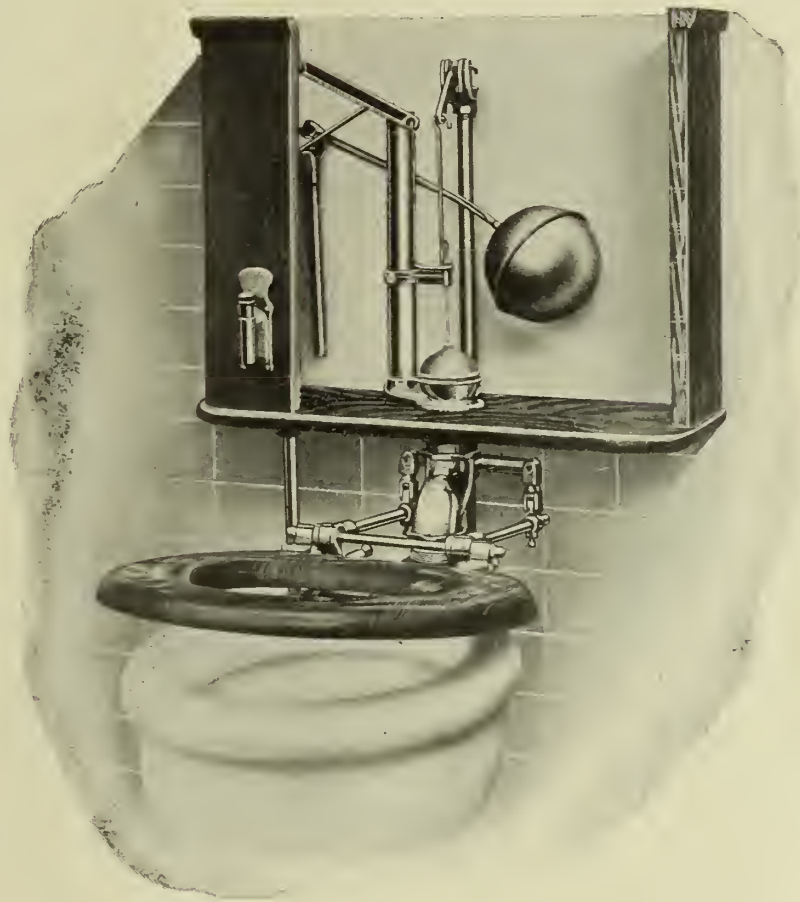
All parts are exceptionally heavy.

Hinge posts have very heavy bearing surface and carry all strain.

***Most simple, economical and durable automatic seat operating mechanism ever assembled.***

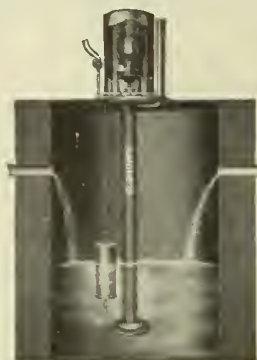
Can be placed on any of our regular combinations at very small cost.

It will pay you to send for full particulars before you install another closet combination.



**THE PEERLESS SELLING COMPANY**  
 EVANSVILLE, INDIANA





Automatic Electric Bilge Pump

### "Economy" Sewage Ejectors Single & Duplex Units

will automatically EJECT any QUANTITY of Sewage at any HEAD. They are adapted for MUNICIPAL DISPOSAL PLANTS and CITY BUILDINGS. The "ECONOMY" may be operated by ELECTRICITY, STEAM or GAS ENGINE.

Write for information on THE "ECONOMY" DUPLEX DRY PUMP CHAMBER EJECTOR and for the ECONOMY CATALOG.

**THOMAS & SMITH, Inc.**  
Manufacturers

116-118 N. Carpenter St., Chicago

## RICE

### The Best Bend

Constructed of cast-iron and brass and it is better than lead bends because it is more sanitary, durable and easier to install. Is the most practical connection between water closet and soil pipe. Made to calk or for Durham System. Write for booklet.



Patented.

**The Edward J. Rice Mfg. Co.**

Manufacturers  
11 Plymouth Av. S.  
ROCHESTER, N. Y.

The quality remains long after the price is forgotten

## HOW and WHY

### The Plumbers' Manual and Text Book

A helpful, convenient reference book for plumbers.

Questions and answers suitable for  
License Examinations.

Postpaid \$1.00. No C. O. D. Orders

**F. W. TOWER**

Building Dep't. Springfield, Mass.



THE ONLY WASHER THAT WILL STAND  
HOT WATER AS WELL AS COLD

Look for "The Bell" stamped on every washer. Have you used the *Bell Fuller Ball*? If not, it will pay you to try it.

Manufactured only by  
**ESTATE OF ANDREW BELL**  
375 Market St. Newark, N. J.

### Roughing-In House Drains

A complete guide to the work of roughing-in plumbing, from the digging of the sewer to the finishing length of the soil and vent stacks, giving each step to be taken and telling how and why it is done.

184 Pages. Bound in Boards. Postpaid, 50 Cents.

DOMESTIC ENGINEERING, 445-447 Plymouth Court, CHICAGO

Second Revised Edition

## Just Off the Press

### Practical Steam and Hot Water Heating and Ventilating



By A. G. King. This book is the standard and latest work published on the subject and has been prepared for the use of all engaged in the business of steam, hot water heating and ventilation. It is an original and exhaustive work. Tells how to get heating contracts, how to install heating and ventilating apparatus, the best business methods to be used, with "Tricks of the Trade" for shop use, rules and data for estimating radiation and cost and such tables and information as makes it an indispensable work for every one interested in steam, hot water heating and ventilation. Contains chapters on Heat, Evolution of Artificial Heating Apparatus, Boiler Surfaces and Setting, The Chimney Flue, Pipe and Fittings, Valves,

Forms of Radiating Surfaces, Locating of Radiating Surfaces, Estimating Radiating Surfaces, Estimating Radiation, Steam Heating Apparatus, Exhaust Steam Heating, Hot Water Heating, Pressure Systems of Hot Water Work, Hot Water Appliances, Greenhouse Heating, Vacuum Vapor and Vacuum Exhaust Heating, Miscellaneous Heating, Radiator and Pipe Connections, Ventilation, Mechanical Ventilation and Hot Blast Heating, Steam Appliances, District Heating, Pipe and Boiler Covering, Temperature Regulation and Heat Control, Business Methods, Miscellaneous, Rules, Tables and useful information. 367 pages, fully illustrated. Price.....\$3.00

DOMESTIC ENGINEERING - 445 Plymouth Court  
Chicago, Illinois

## Albemarle - Hoffman NEW YORK

A new modern hotel located at the hub of New York's greatest business, representing a Five Million Dollar Investment on the sight of the former Hoffman House.

OVERLOOKING MADISON SQUARE

Broadway, 24th Street, Fifth Avenue

THE ACME OF ARCHITECTURAL  
PERFECTION

Accommodations for 1,000, offering maximum luxury and comfort at much lower rates than offered in any other Hotel in America, consistent with highest class service.

A Good Room At \$1.50 Per Day  
A Good Room With Bath \$2.00 Per Day

Handsome Apartments of any number of rooms at proportionate rates.

The management is a guarantee of the highest refinement and protection to ladies and families.

Telephones,  
Madison-3440-3560

DANIEL P. RITCHEY



















UNIVERSITY OF ILLINOIS-URBANA



3 0112 111051725